IMPROVING EDUCATIONAL OPPORTUNITIES FOR DISABLED ADULTS THROUGH OPEN LEARNING

ADULT SPECIAL EDUCATION

87-04802

IMPROVING EDUCATIONAL OPPORTUNITIES FOR DISABLED ADULTS THROUGH OPEN LEARNING

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for the

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Victoria, British Columbia

1987

Canadian Cataloguing in Publication Data

Miller, Anne, 1946-
Improving educational opportunities for disabled adults through open learning

Bibliography: p.
ISBN 0-7726-0649-8

1. Handicapped - Education (Higher) - British Columbia. 2. Adult education - British Columbia. I. Open Learning Institute (Richmond, B.C.) II. British Columbia. Ministry of Advanced Education and Job Training. II. Title.

LC4814.C32B74 1987 371.9'09711 C87-092093-6

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PREFACE

At a meeting of the Ministry Advisory Committee on Adult and Continuing Education in the fall of 1985 a discussion of future directions of open learning occurred. Dr. Ian Mugridge, a Committee member and I agreed that some adult special education needs could be met via open learning. We also agreed we needed more information but that there was a need to determine what the requirements might be. This was the genesis of the following study, the first public exploration of the relationship of open learning programs and services to the needs of disabled adults in our province.

This report provides a useful basis for discussion at a most propitious time. With the establishment of the Open Learning Authority, important decisions regarding the future direction of both open learning and adult special education in our province are imminent. This study provides an independent and informed view of not only what exists but also what ought to be done in British Columbia if the insights of adult education and the resources of educational technology are to be harnessed for the benefit of disabled adults.

Equally important is the report's emphasis on the development of flexible and humane approaches to meet the learning needs of disabled adults. Improving Educational Opportunities for Disabled Adults Through Open Learning is more than this report's title, it is also its message.

After reading the Miller Report one conclusion is apparent; there are practical means by which open learning systems can be strengthened to meet the learning needs of disabled British Columbians.

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EXECUTIVE SUMMARY

This report focusses on ways of strengthening the open learning system in British Columbia to provide improved learning opportunities for disabled adults.

A systems approach was adopted in analysing the dynamic and complex elements of the open learning systems in British Columbia. Little has been done in the way of research which relates to both open learning and adult special education. The available literature does reveal, however, certain critical issues, common to both fields, which pertain to quality provision of open learning for disabled persons. These include the need for coherent policies, flexible program practices, comprehensive support services, improved in-service training and increased public awareness.

The report reviews development of both open learning and adult special education over the past ten years. Events leading to the creation of the Open Learning Institute (OLI), the Knowledge Network of the West (KNOW) and their merger into the Open Learning Authority are reviewed. The pioneering work of North Island College and the Telecollege consortium is acknowledged. Other studies and initiatives dealing with the provision of educational services to British Columbia's handicapped adults are cited.

A series of interviews provides an overview of the present situation in British Columbia, the strengths and weaknesses within the province regarding provision of open learning opportunities for the disabled. It shows the programming strengths of the OLI, and the support strengths of the community colleges. As the Open Learning Authority enters the present scene, there seems to be a growing interest in occupational training and technological developments.

The British open learning system is even more complex and equally dynamic. From its inception, the Open University attempted to serve disabled adults. A variety of central programs and services, augmented by regional and local services, aid disabled adults. A newly-created Further Education and Curriculum Development Unit of the Department of Education and Science has expanded open learning opportunities for disabled adults, while the new Open Tech of the Manpower Services Commission will increase industry-related open learning practices. The British system is characterized by inter-agency and within-agency collaboration, strong foundation structures and planning, and a reliance on trained tutor/counsellors. Increased flexibility is the watchword as the British move from a conventional distance education to a more responsive open learning mode.

The report concludes with a series of recommendations built around a suggested plan of action. Highlights include the following:

1. That the Ministry of Advanced Education and Job Training in co-operation with the Open Learning Authority:

    a) Encourage co-operative and collaborative approaches toward the development of open learning programs and services for disabled adults.

    b) Co-sponsor a provincial conference on the theme of "Open Learning Opportunities for Adults with Special Educational Needs".

2. That the Ministry of Advanced Education and Job Training revise its funding formula in order to recognize the costs of providing adequate open learning opportunities for handicapped adults.

3. That the Open Learning Authority establish a broadly-based standing advisory committee to recommend policies and procedures to its Board regarding provision of programs and services to disabled adults.

4. That the Open Learning Authority develops to a more decentralized structure, allocating leadership and production functions to OLI Central, assessment and outreach functions to OLI Regional Centres, comprehensive student support to community colleges, and broadcast delivery to KNOW.

5. That the Open Learning Authority establish a new position of tutor-counsellor.

Several areas of further investigation are also recommended including an on-going study of how various technologies, including computer applications, can be utilized for the benefit of handicapped adults in open learning settings, and a more thorough investigation than was possible in this report of the implications of open learning methods for adults with learning disabilities and emotional/social handicaps.

These recommendations, and the report as a whole, provide a basis for further discussion of how the open learning system in British Columbia can be strengthened to provide increased learning opportunities for handicapped adults.

ACKNOWLEDGEMENTS

A number of people have kindly contributed their time, resources, knowledge and insights to this report. To these people the author is truly grateful:

From Canada

Dr. Jack Adamowitz, Open Learning Institute
Don Allen, Douglas College
Cheryl Amundsen, Concordia University, Montreal
Trish Angus, Douglas College
Laurel Armstrong, Vancouver Community College
Wayne Avery, Vancouver Community College
Deborrah Baker, Open Learning Institute
Gail Barry, Vancouver Community College
Sherry Bertrand, Ministry of Advanced Education and Job Training
Bobbie Boehm, Douglas College
Wayne Bottlinger, Vancouver Community College
Garnet Brown, Fraser Valley College
Barbara Caldwell, Ministry of Advanced Education and Job Training
Jocelyn Calvert, Open Learning Institute
Virginia Chisholm, Douglas College
Mary Ann Epp, Vancouver Community College
Dr. Glen Farrell, Knowledge Network
Kathleen Forsythe, Knowledge Network
Dr. Paul Gallagher, Vancouver Community College
Shell Harvey, Ministry of Advanced Education and Job Training
Michael Hill, College of New Caledonia
Dr. David Hudson, North Island College
Lorraine Hudson, North Island College, Open Learning Institute
Pat Hudson, Open Learning Institute
Elaine Karras, Open Learning Institute
Bob Lajoie, Vancouver Community College
Maureen Lawrence, Open Learning Institute
Peter Littleboy, Vancouver Community College
Honorine Loader, Open Learning Institute
Gladys Loewen, Douglas College
Norma Macovi, Open Learning Institute
Don McEachern, Douglas College
Dr. David Mitchell, Concordia University, Montreal
Dr. Ron Neufeld, University of British Columbia
Betty Noble, Vancouver Community College
Nancy Nowak, Vancouver Community College
Lucille Pacey, Knowledge Network, University of Victoria
Jody Pilling, Douglas College
Ethelyn Rankin, Vancouver Community College
Carol Rennie, Open Learning Institute
Joan Richardt, Open Learning Institute
David Roach, Knowledge Network
Nick Rubidge, Ministry of Advanced Education and Job Training
Robert Salhany, Concordia University, Montreal
Dick Scales, Open Learning Institute

Candace Solar, Ministry of Education
Jean Spence, British Columbia Institute of Technology
Nancy Stewart, Montreal
Gillian Summers, North Island College
John Tayless, North Island College
Mary Ann Williamson, Open Learning Institute
Arlene Zuckernick, University of Victoria

From Britain

Neil Barnes, BBC
Andrea Boothman, RNID
John Brown, BBC
Derek Child, OU
John Clark, Open Tech, Leicester Polytechnic
Peter Clyne, Inner London Education Authority
Clive Davis, RNID
John Deeley, OU
Alan Docherty, RNIB
Wyn Evans, The Spastics Society
Dr. Malcolm Fox, Open Tech, Leicester Polytechnic
Peggotty Graham, OU
Merilie Huxley, FEU
Angela King, RNID
Judith Male, Royal Association for Disability & Rehabilitation
Brian Patten, RNIB
Tony Pope, Open Tech
Michael Richardson, OU
Jim Sandhu, Newcastle Polytechnic
Margaret Scott, Open Tech
Peter Shepherd, Open Tech, Leicester Polytechnic
Sylvia Simmons, NEHS
Jack Snow, Open Tech, Hereward College
Chris Stuart, Open Tech
Maggie Stothart, OU
Dr. Tom Vincent, DES, Her Majesty's Inspectorate
Janet Williams, OU

With special thanks to the Steering Committee of this project:

Dr. Ron Faris, Ministry of Advanced Education and Job Training
Denys Meakin, Open Learning Institute
Dr. Ian Mugridge, Open Learning Institute
Don Oakes, Vancouver Community College
Dr. Richard Pearce, Vancouver Community College

and to the British Council for its generous assistance and hospitality while I was in Britain and especially Ken Wallace in Ottawa and Catherine Bryan in London.

GLOSSARY

Impairment - the actual physical or mental condition, or the deficiency itself.

Disabled Adult - persons who possess physical, neurological, mental and/or emotional problems which significantly limit and/or interfere with their education. Such a person may be learning disabled, mentally disabled, physically disabled, visually impaired and/or hearing impaired. (B.C. Ministerial Definition, 1983)

Handicapped Adult - a person over 18 who, consequent upon a disability, is disadvantaged with respect to his or her environment (Bradley, J. and Hegarty, S. 1981). (Although it is recognized that the two terms, disabled and handicapped, differ slightly, for the purposes of this paper, they will be used synonymously.)

Adult Special Education - those access/support services and programs which enable disabled adults to be integrated into existing institutional programming and/or to achieve a greater degree of independence. (Ministry of Education definition)

Mainstreaming - the process of integrating disabled individuals into the regular educational system, and society.

Distance Education - an instructional system whereby the teaching behaviours are physically separated from the learning behaviours. Educational materials may be delivered in a number of forms, including print-based, audio-based, video-based and computer-based, and may vary in terms of instructional and motivational support.

Open Learning - educational activities carried out by the learner at a time, place and pace to suit his or her circumstances, therefore making educational opportunities more accessible and/or more pertinent to the learner's needs. Open learning may include distance education.

ACRONYMS

In Canada

ALRC	Access Learning Resource Centre
ASE	Adult Special Education
BCIT	British Columbia Institute of Technology
CEIC	Canada Employment and Immigration Commission
CILS	B.C. College and Institute Library Services Clearinghouse for Print Impaired
KNOW	Knowledge Network of the West
NIC	North Island College

OLA	Open Learning Authority
OLI	Open Learning Institute
OPLNET	Open Learning Computer Communications Network at OLI
UVIC	University of Victoria
VCC	Vancouver Community College

In Britian

BBC	British Broadcasting Corporation
DES	Department of Education and Science
FEU	Further Education and Curriculum Development Unit
LEA	Local Education Authority
MSC	Manpower Services Commission
NBHS	National Bureau of Handicapped Students
OU	Open University of Britain
RNIB	Royal National Institute for the Blind
RNID	Royal National Institute for the Deaf

CHAPTER I

INTRODUCTION

> Everyone is handicapped in some way. It is just a matter of degree. Most are very capable in many ways that have nothing to do with their handicap. They can be very productive if society will just let them. They don't want a hand-out - just a hand up (Southern Regional Educational Board 1978, p.1).

Whether or not you agree with this statement, it must be admitted that it is food for thought. It is hoped that this report will serve the same thought provoking purpose, and more, will lead these thoughts to actions so that handicapped adults in British Columbia can be given an equal opportunity for quality education.

As British Columbia creates a new educational institution with the merger of the Open Learning Institute and the Knowledge Network into the Open Learning Authority, it has the opportunity of becoming a model in North America for the delivery of adult education to handicapped students.

British Columbia is rich in human and physical resources which can become the building blocks upon which programs to serve the disabled can be based. Accurate information and a carefully designed action plan are necessary to provide the framework for building on this foundation.

This framework, however, must reflect certain realities. It is said that we live in an Age of Information. Kokaska (1981) suggests, however, that we are in an Age of Survival of the Most Creative and Flexible.

These notions are not necessarily dichotomous. Knowledge has been expanding and changing at a great rate, with important

implications for education. A growing body of pure knowledge, of knowledge and skills of the workplace, and increased self-knowledge - all show that we have outgrown traditional rigid structures of education. New information demands new approaches to education, and the vast expansion of information demands a flexible structure which can continue to grow as new knowledge and a growing number of people are drawn into it.

This report offers a challenge to open learning institutions in British Columbia. With a strong commitment to helping handicapped adults, an awareness of their many differences, and with efforts to adapt educational systems to comply, British Columbia can offer its handicapped adults a hand up.

The Purpose of the Study

There have been a number of initiatives taken in British Columbia aimed at improving the state of both adult special education and open learning, including initiatives aimed at the provision for and integration of handicapped students within education. Too often, however, traditional educational delivery systems are limited in how they address the special needs of handicapped adults, primarily because their rigid systems can accommodate only those who "fit". Yet many handicapped adults, because of a number of limiting factors, cannot easily "fit", and are therefore denied meaningful educational opportunities.

At the same time, education in British Columbia has accepted the challenge of the province's scattered population and its diverse clientele. Open learning has developed at various levels of the provincial post-secondary system from small, ad hoc initiatives to large, highly organized institutions.

In addition, changing societal attitudes towards the handicapped have been reflected in governmental policy such as human rights legislation, and institutional policy such as mainstreaming.

With the present commitment to address the educational needs of handicapped adults, as well as the impending establishment of the OLA, BC's post-secondary educational system will be addressing the areas of adult special education and open learning as one.

How can the existing open learning system in British Columbia be strengthened to provide improved learning opportunities for disabled adults? The purpose of this report is to assist and inform decision-makers in answering this question. In the process, it will provide a new perspective on the present post-secondary educational system, and the needs of handicapped learners, and suggest some imaginative yet practical responses to this challenge.

Methodology and Delimitations

Of immediate importance was a clear identification of the problem to be addressed, as well as the definition of scope of the study to be undertaken (See Appendix 1) A limited review of literature was conducted to determine the extent to which the problem has been addressed elsewhere. This process was valuable in determining the diverse aspects of the problem to be addressed. A systems approach was used in the analysis of the problem and the following components were examined within a holistic framework which emphasizes the on-going process of providing open learning.

- policy
- organization/structure
- administration/process
- programming

- communication links
- tuition: support services and tutoring
- funding and financial considerations

In July, 1986, I conducted a series of interviews throughout the province of British Columbia.

Interviews in Britain were conducted in October, 1986, in order to assess their open learning and adult special education programs. The pioneering work of Britain's Open University as well as many other governmental and institutional initiatives in both distance education and special education suggested these would be good sources for ideas and strategies that could be adapted to the needs of British Columbia.

These investigations have led to a series of recommendations for policy and practice within B.C. Because of the relative novelty of addressing special needs through open learning, this report concludes with the identification of some areas requiring further investigation.

CHAPTER II

REVIEW OF LITERATURE

Both open learning, and integrating handicapped persons into the educational mainstream are recent developments in education. A growing body of literature exists which examines various aspects of open learning and for adult students. Some recent literature is also available which deals with the problems and merits of mainstreaming handicapped persons, though much of it relates to children.

There is, however, little material which merges these two concerns, namely open learning and adult special education. From what is available in the fields of open learning, and in adult special education, then, it is necessary to extrapolate for the most part, how one would relate to the other. The literature reviewed here is confined to what is relevant to open learning for handicapped adults and is organized into the following categories: philosophy and policy, program development and delivery, support services, staff development, and attitudes.

A. Philosophy And Policy

> "... Education is to do with power. People without education are at the mercy of those with it ... it is not simply the right of the better-educated minority ... the case for expanding education is a simple egalitarian one" (Perraton 1981, p. 14).

The underlying philosophy of an educational institution towards all of its students will be the root from which policy and practice will grow. American experience is instructive. Section 504 of the Rehabilitation Act of 1973 in the U.S., urges colleges and universities to develop a clear statement of a philosophy dedicated to equal rights for handicapped persons. "Section 504 is a basic civil rights

provision aimed at ending discrimination against handicapped citizens" (Senita 1980, p. 3). In British Columbia, a study examining educational opportunities for disabled adults in western Canada, is based on this assumption of equity, and the normalization and independence of handicapped persons (Cassidy 1983).

It must be noted that equity does not necessarily mean offering handicapped students the same provisions and services as non-handicapped. The point must be made that "in all ... relationships, people with disabilities should be treated as equals to the non-disabled; and the only way to accomplish this equality is to recognize the disabled as being different" (Westwood, et al. 1979), and thus may require different services.

McInnis and Brindley (1986) suggest that an institution's most important expression of educational philosophy lies in its policies and regulations. Yet, Cassidy (1983) found that "with few exceptions (in western Canada), formal educational policy and administrative regulations made little reference to the education of adults with disabilities" (p.2). Institutional commitment is reflected in funding policy, administrative policy, organizational policy, admissions policy and a number of practices. For instance, a strict adherence to rigid admissions regulations, time lines and program delivery do not reflect an understanding of, or commitment to solving a wide variety of handicapped students' problems. "Methods of program operation will need to be adapted to facilitate the education of the handicapped, and examinations should reflect achievement and not the handicapped condition" (Senita 1980, p.5).

The Special Education section of the Encyclopedia of Educational Research (Mitzel 1982), anticipates "rapid

expansion in the number, severity, and age range of handicapped individuals to be served" (p.1741). Cassidy (1983) projected the same trend for disabled adults in B.C. This future reality calls for advanced planning in the areas of special education regarding the policies of educational institutions, including those providing distance education or open learning opportunities.

B. Program Development and Delivery

Several aspects of program development are addressed in the literature which have implications for special education within an open learning setting.

Collaboration:

Collaboration in education is the sharing of expertise from several disciplines for the sake of addressing problems and needs. Joint efforts could exist among personnel within an organization or with other agencies and persons outside an organization. One example of effective internal collaboration is the course team, which involves several different specialists working together to develop educational courses.

A model of this concept is seen at the British Open University where course teams stress flexibility in their formation, so that they can adapt to different personalities, content and teaching methods (Kaye and Rumble, from Seabourne and Zuckernick 1986). This flexibility is important so that input regarding special needs has an opportunity of being considered.

External links are also important. Tutor (1977) makes it clear that outside consultancy is required in many areas to

help diagnose problems and recommend solutions. Moreover, research suggests that with the apparent fragmentation and duplication of services in special education, collaboration could contribute not only to the sharing of expertise in special education, and open learning, but in courseware, equipment and costs as well (Mitzel 1982; Cassidy 1983).

In examining the value of interagency linkages, Tindall and others (1981) point out the value of advocacy or advisory groups as an important member of the linkage process. They suggest that these groups can "contribute information on consumer needs, act as a check to ensure that agreements (among team members) are fulfilled, establish a good public image for cooperation and lobby for further resources" (p.12).

Adaptations:

To accommodate increasing numbers of students with varied handicaps, practices and procedures must be adaptive. This includes adaptations involving "flexible scheduling, flexible studying, recording of answers, mechanical aids, revised formats, tactile reading, sign language, and/or auditory presentation" (Grise 1980; from Mitzel 1982, p.1746). There are warnings however that educational standards must not be compromised when making changes. "The lowering of standards implies a lesser expectancy for the handicapped that is incompatible with current social values" (Mitzel 1982, p.1745). Section 504 of the U.S. Rehabilitation Act strictly requires that standards not be altered, but rather, applied equally to all students (HEATH Research Centre 1985).

Testing:

Testing procedures need attention as well. Senta (1980) focusses on admissions testing, and urges that they be as non-discriminatory as possible, that they measure what they are set out to measure, rather than merely indicating a student's handicap. The concern over the quality of special education requires competency-based testing so that the academic performance of many handicapped students does not decline at the expense of promoting social skills (Mitzel 1982).

Delivery:

Ardi and Palmer (1979) examine three models being used in the U.S. for delivery of educational services to the handicapped. This study strongly supports a highly coordinated and decentralized model. Such a system "offers direct and indirect services and acts as a clearing house for all facets of planning as well as for dealing directly with problems as they arise" (p.15). It requires a coordinator/resource person to work with faculty, students and administration in dealing realistically with problems at hand.

Research by Torstein Rekkedhal (1985) into the role of the tutor in the distance education process identifies factors which significantly contribute to students' positive attitudes towards study, to higher rate of assignment submissions, and greater total of assignment completions. These include the following:

- Tutors were assigned students in the initial "crucial" period of study and followed them throughout their courses.

- Tutors integrated a number of teaching and counselling roles which were usually delegated to different people.

Daniel and Marquis (1979) and Roberts (1984) confirm the importance of increased attention to students in the initial stages and indicate that it may actually deter later withdrawal.

Technology:

Whereas delivery looks primarily at the many channels for providing education, technology involves the physical devices used to carry education to the learner. Technology has been growing rapidly in recent years and it lends itself well to an open learning format by offering options in pace, place and time of use. As well, it offers cost-effective delivery, opportunities to address several levels of education, differing modes of communication, and larger numbers of students (Perraton 1981).

Sandals (1985) poionts out that along with the growth in technology over the past 15 years, "we have also seen an even more rapid appreciation and knowledge base in the area of education and rehabilitation of special needs individuals" (p.2). We are at a point now where we can use developing technology to promote greater learning opportunities for handicapped students. By providing learner control over pace, place and time of use, technology can address the complex, unique needs of handicapped individuals. It is encouraging that Seabourne and Zuckernick (1986) find a move in Canada towards learner control within the development of courses for open learning.

Computer applications are growing rapidly in education, which has led to a decrease in start-up costs and an increase in

software development. Little attention, however, has been directed towards the development of courseware for special needs students (Sandals 1985). Computer Assisted Learning programs hold promise for those with learning disabilities, physical handicaps and mental handicaps who require "extra guidance and remediation or enrichment and advancement" (Sandals 1985, p.5). Sandals' report cites recent developments in Computer Assisted Learning applications in Canada.

Whatever the delivery mechanism of distance education materials, Perraton (1981) stresses the importance of 2-way communication. "Unless there is dialogue, education changes to indoctrination" (p.15). With all students, including those with special needs, the inclusion of feedback mechanisms along with, or within, the technology is vital. A weakness in distance education regarding feedback from tutors to students was addressed by Sloan (1965) and Harter (1969). Their surveys reported that delayed feedback on tutor-marked assignments or to students' questions lessened students' interest in the course. Neither print nor broadcasting readily provide feedback, leaving students and tutors having to rely on the telephone or the mail (Hoyle and Megarry 1980).

Computer technology has the potential of revolutionizing distance education (Vincent 1985). Dr. Tom Vincent has done outstanding work using microcomputers with the blind. Recognizing that developing communication skills is of prime importance to learning for many handicapped individuals, Vincent uses synthetic speech as the principal output medium of the computer. Many other such examples hold promise for handicapped individuals' place alongside the non-handicapped.

C. Support Services

Much of the literature points to the importance of counselling services within open learning as well as within special education. Even more than traditional education, which has a supportive framework built in, learning at a distance requires autonomy of the learner, self-motivation, and self-confidence (Neufeld and Birch 1985; Nicholson 1976). Unfortunately, many handicapped students lack these requisites (Penn and Dudley 1980). They are likely to have had many experiences of "failure" and may often need support to adjust emotionally, and to develop the skills necessary to learn successfully at a distance. Unfortunately, this area of concern is given little attention in open learning institutions. In fact, "the response to the individual needs of the student learning alone at a distance has often become lost in the overriding requirement to produce a grand package of materials" (Sewart 1980, p. 172).

Human support mechanisms are important considerations to learning at a distance for both the handicapped and the non-handicapped. Many handicapped adults, as a result of their particular conditions, have developed a tendency towards withdrawal and isolation (Larson 1982). Under these circumstances, open learning for handicapped learners may lead to isolated learning rather than independent learning. It is important to bear in mind that when open learning offers limited support options to handicapped students, it limits their development, rather than encourages their growth.

D. Staff Development

Kumar's (1977) study indicated that 55 percent of respondents agreed or strongly agreed that their institutions lack

appropriately trained personnel in special education, and 63 percent felt that there was insufficient in-service training in teaching handicapped students. Both of these factors are barriers for students' successful completion of education. Senita (1980) calls for teacher training which includes a knowledge of disabilities, adjustments in teaching styles, and skills in flexibility.

Studies of distance education show a significant gap between the theory and the practice of teacher training in distance education (Hoyle and Megarry 1980). The point is made that if face-to-face instruction requires formal training, then surely open learning, which alters the role and tasks of the instructor, requires training as well.

E. Attitudes

Research indicates that public attitudes are the strongest barrier to success for handicapped students. It is disturbing to realize that negative attitudes still exist towards handicapped persons, who are perceived and treated much the same as racial minority groups (Penn and Dudley 1980, p.354). An extensive study was conducted within Wisconsin's Vocational, Technical and Adult Education (VTAE) programs (Kumar 1977) to assess barriers for handicapped adults as perceived by staff members. The study revealed that about 65 percent agreed or strongly agreed that employers' negative attitudes were a barrier to enrolling in programs, and 45 percent agreed that students' negative attitudes were a barrier.

Senita (1980) finds that negative attitudes may be a result of the fact that teachers and the general public still lack an awareness and understanding of the handicapped students' conditions and problems. Many handicaps, such as learning

disabilities, hearing or neurological impairments, are invisible (Ardi and Palmer 1979) and within distance education, even visible handicaps may be hidden. This calls for consciousness raising within an institution, to educate those who deal with the handicapped about the nature of handicaps and ensuing problems.

Although much of the literature reviewed deals solely with open learning or with special education, these critical needs then, have been identified which have common significance for both. These include:

- a clear, strong statement of policy
- programming practices which address:
  - flexibility
  - the initiation period
  - the potential of technology
- strong support services
- positive public attitudes
- better staff development.

CHAPTER III

BRITISH COLUMBIA
Historical Development

The practice of open learning in British Columbia goes back to 1950, when the University of British Columbia's Centre for Continuing Education offered a correspondence program for credit courses. In 1974 a distance education department was created within the British Columbia Institute of Technology in the technical-vocational area to develop and deliver selected courses by correspondence. Three years later, the institute became involved in the Hermes satellite project, transmitting a series of documentary and discussion programs via satellite. This experiment grew to include B.C. colleges and delivered a number of courses from the Anik-B satellite.

In the summer of 1976, a study was commissioned by the Ministry of Education to examine and propose policy on continuing education issues (Faris 1976). The Report on Continuing and Community Education examined distance education and educational technology in light of their potential to deliver education to all areas of the province. Among the recommendations was that of an "open college" to serve many needs, including those of the handicapped.

Concurrently, the Report of the Commission on University Programs in Non-Metropolitan Areas stated that a need existed in the interior of B.C. for university level programs. This study concluded with recommendations that the universities, led by Simon Fraser University, study a variety of ways to best fill this need. These reports led to the formation of a Distance Education Planning Group the following year (Carney 1978), which examined the potential of distance education as a strategy to meet the needs of post-secondary students in B.C.'s interior.

Using the British Open University as a model, the Planning Group proposed the creation of the Open Learning Institute (OLI). OLI began in 1978 as a provincially-funded organization, designed to deliver programs by correspondence in the areas of adult basic education, technical-vocational, and undergraduate arts and sciences. The correspondence materials were supported by regional advising centres to provide links to students. OLI enlarged its delivery options when the Knowledge Network of the West (KNOW) was established in 1980. The role of KNOW was to lend support to distance education organizations like OLI, by delivering educational programs by satellite and cable television.

In 1975 North Island College, a small community college, was established on northern Vancouver Island, in a rugged geographical region with a widely dispersed population. In order to serve its widely scattered and varied population base, North Island College rejected the traditional campus-based model of delivery, for an open learning approach.

A consortium for educational television, known as Telecollege, was formed in 1982. Originally composed of three colleges and a school district in the Lower Mainland, it gradually expanded to ten British Columbia colleges and two school districts, as well as Arctic College of the Northwest Territories. Through a central office it provides learners with advisory services, educational materials and general administrative assistance. It also co-ordinates program acquisition and scheduling chiefly via the KNOW distribution systems.

Although special education has a longer history in B.C., it has only recently addressed the needs of disabled adults. The Faris Report (1976) was the first government study to identify adult special education as an issue needing attention. It recommended that special funds be made available for the development of

activities and services to disadvantaged groups such as the handicapped.

The following year the Ministry of Education commissioned a study to examine the problem (Hansell 1977). Although this report was unable to provide hard data on the number and types of handicapped adults in B.C., it gave clear evidence that a significant problem existed, and called for further research and action in adult special education. The report's findings that access, specialized learning devices, and individualized programs are prominent needs of handicapped adult students, was an intimation of the potential of open learning in this area.

The first steps taken by the Ministry of Education to address adult special education included the establishment of a special $400,000 fund for coordination of adult special education programmes and services, as well as the creation of the position of Ministry consultant for Adult Special Education. Dr. Frank Cassidy, as consultant and co-ordinator, assisted in the introduction of adult special programs into the colleges and school boards.

In 1981, the International Year of the Disabled, a governmental policy statement was issued on Adult Special Education: "A Ministerial Policy on the Provision of Adult Special Education Programs in the Public Education System of British Columbia", which emphasized access issues and clarified ministerial and institutional roles.

During the ensuing years, the Ministry of Education initiated a number of discussion papers as a means of generating ideas and strategies for the development of Adult Special Education. As well, individual community colleges were, in conjunction with the Ministry, developing resource guides and handbooks for those working in this area. These guides provide specific information

and support for those working on the developmental progress of adult students with special needs and may be the basis for the development of future open learning resources.

More recently, a University of Victoria study (Paul 1986) of Ministry policy and practice recommended that the Open Learning Institute be encouraged by the Ministry to deliver programs and services, possibly with an agreed upon target participation rate as an objective.

It can be seen then that the development of open learning in conjunction with adult special education has been relatively recent and sporadic. Despite limited resources, the present situation provides the basis for more substantial development in this field. It is to the assessment of the present scene that we now turn.

What Exists

There are a number of B.C. agencies which work to meet the educational needs of handicapped adults in one way or another (Appendix 2). This chapter will look at the component parts of the post-secondary education system, provincially and regionally, which must be addressed if the learning needs of disabled adults are to be met. In the following analysis, the operations of a number of institutions will serve as examples. Throughout this discussion it should be remembered that OLI offers a very wide range of programs while several other institutions are more focussed in their offerings.

Policy

The policy of the Ministry of Advanced Education and Job Training towards handicapped adults is built on the conviction that disabled adults have a right to appropriate learning

opportunities within a public educational institution. The Ministry assists institutions in addressing special needs by developing guidelines for learning and by co-ordinating special programs.

OLI's current policy on adult special education recognizes a responsibility to provide appropriate services to handicapped individuals "only within the constraints of reasonable cost-benefits" (OLI Policy Statement). It offers to make special modifications and/or instructional arrangements, but practice has shown that this attention is usually on an ad hoc basis. Bill 31, the proposed OLA Act, does not make specific mention of addressing handicapped persons.

The community colleges, while not necessarily mandated in their institutional policies, assumed a commitment to provide instructional services to handicapped adults.

Organization/Structure

The majority of B.C.'s population lives in the Lower Mainland. OLI's clientele reflects this demographic reality. OLI operates a central unit in Richmond and 3 regional centres in Victoria, Prince George, and Kelowna. It recently closed three other centres due to budgetary restraint. The central office attends to the function of administration, program development, production, and some advising. The regional centres, co-ordinated by regional advisors, serve a significant number of students in their advising capacity. Staff also perform a number of duties including liaison with local colleges and community agencies, out-reach and public relations.

KNOW is a telecommunications network, serving the needs of various distance education organizations by acquiring and delivering educational programs via Canada's Anik C-3

satellite. It offers a variety of programs which support OLA courses, and is slated to be an integral part of the Authority.

The B.C. University Consortium is a joint endeavour to respond to unmet university-level needs. It is made up of the University of British Columbia, the University of Victoria, Simon Fraser University and the Open Learning Institute, who share resources, courses and funding.

Vancouver Community College consists of three campuses, each delivering educational opportunities of a differing nature. North Island College emphasizes human interaction and delivery through an open learning approach using tutorials, learning centres and learning resources. Its registration operates on a continuous entry basis except the technical/vocational programs which require some group work and are organized around a start-up date in accordance with local economic activities. Thus, there are no closings and no semesters. Students work with learning materials on their own aided by a tutor with whom they have made a learning contract.

Douglas College does not offer distance education, per se, but delivers programs for handicapped adults in a way which resembles open learning. It operates Access Learning Resource Centre (ALRC) which addresses the needs of the handicapped, although it is not a separate department of special education. Since it involves all departments, with their different directors and deans working together, it does not become a disabled persons' "ghetto".

Administration/Process

OLI's registration is carried out by mail or by telephone through a toll-free number as well as on-line computer registration at the Victoria Regional Centre. Since students are seldom seen,

problems due to handicaps are often not readily identified. OLI's registration form provides space which allows a handicapped student to "note any handicaps which may require special arrangements or assistance", (Appendix 3) but this wording does not clearly state OLI's willingness to accommodate them. Recently, OLI has adopted a continuous registration program, rather than a semester approach.

Many of OLI's disabled students are referred by the Workers' Compensation Board, but the true numbers and types of disabled students attending OLI are unknown. It is, in fact, difficult to obtain any accurate information in terms of actual numbers of disabled students in any post-secondary institutions. Problems related to disabilities are often identified by tutors at OLI, who contact the advising services with those problems difficult to handle. In an effort to alleviate this problem, OLI has requested funding to perform a survey of the special educational needs of disabled students in the province.

The data available for particular categories of handicaps in the secondary school system could give some indication of projected numbers in the post-secondary system. According to secondary school data (Appendix 4), there are about twenty-five times more severe social/emotional problems than physical handicaps; learning disabled number about sixteen times more than physical handicaps; and educable mentally handicapped number eighteen times that of physical handicapped. The meaning of these figures will have implications for funding and the different programs and services which will be needed by disabled students as they enter the post-secondary system.

Programming

A collaborative approach is used within program development in several B.C. institutions. For instance, both OLI and UVIC use

course teams to provide multi-faceted expertise, but no particular individual is responsible for addressing special needs.

The program development process at OLI often begins with a decision to offer particular content. A decision is then made as to the best way to deliver this particular content, usually within the bounds of print and television media. Finally, prospective students are identified. Because of this process, handicapped students' particular problems are seldom considered during the initial stages, but are dealt with on a reactive basis, once the problem intensifies.

KNOW collaborates with community colleges and OLI to produce educational programs using the Network's facilities, yet 40 percent of its broadcasts are of general interest. A liaison with viewers, community groups and Ministries provides input into this area of programming.

The University of Victoria, whose distance education program focusses on professional development courses, has a different approach to programming. Students are identified first, the content is selected and adapted to suit them, and several appropriate media are mixed to suit both student characteristics and content.

Considerable effort and resources are committed to program development at OLI. Its learning materials are primarily print-based, but may include kits and/or tapes, and are sometimes linked with an audio and/or a television component. Being print-based, its materials are geared towards the sighted and those without reading and writing problems. Taping is done on an ad hoc basis, but this may be poor quality and can take 6-8 months to produce (OLI 1986). A problem can arise when special

arrangements must be made, since it is not clear which budget centre is responsible for expenses incurred.

The delivery of distance education/open learning varies among the institutions. Both OLI and NIC focus on the mailing of print materials and/or tapes, using an audio or a T.V. component as a support at times. Although UVIC uses a multi-media approach, it still relies to a large extent on postal services. Telecollege focusses on television, using KNOW programs to a great extent.

Very few of these efforts address handicapped needs in a pro-active manner. One exception is the ALRC program at Douglas College. This program has grown from 20 students four years ago to 400 today. Students interested in registering are urged to identify any handicaps which might present problems. At this time, career paths and teaching strategies are recommended and an educational plan of action is laid out. This individualized approach includes specific program strategies and tutoring and may or may not include distance modes of delivery. The students' disabilities are considered and responded to in terms of how they affect learning. The aim of this program is to integrate handicapped students whenever possible.

The accessibility of library resources is an issue seldom emphasized by open learning institutions. This is a point that many feel needs to be attended to in order to encourage higher-level thinking through distance study. Inability to use library facilities can be a serious problem for disabled students studying at a distance, especially those who are immobile, visually impaired or who have reading problems.

B.C. has a promising initiative which may answer some of these problems for the print-impaired. This centralized service, called the College and Institute Library Services (CILS) is a clearinghouse of tape and braille resources located in libraries

throughout the world, and is housed at the Langara campus of VCC. CILS has established a network to allow communication between libraries and students through a system of electronic mail and courier delivery. CILS not only provides links to sources of existing braille and taped resources, but it has purchased and produced these materials as well. It is unfortunate that this service, free-of-charge to handicapped students, is little used. The greatest number of students to use it during fiscal '85/86 were twenty-nine students from VCC, whereas only three OLI students used it (CILS 1985/86). UVIC handles the library issue by offering an "info line" which is essentially a telephone line to the librarian who searches and mails needed materials. OLI has an agreement with UVIC to use their library services.

Since the aim of education for most disabled students is ultimately employment, many efforts are combining the educational with the vocational component. One such program proposed at the College of New Caledonia is called Project Homework. "Using computer-based instruction, (the object of this effort is) to provide vocational training for disabled persons unable to access this training via conventional means" (College of New Caledonia 1986, p.1). Recognizing that physical access may be a problem, Project Homework offers to take the training to the student through computers. It is a partnership whose members include the College of New Caledonia, the Centre for Advanced Resource Technologies and Control Data Corporation. Similar collaborative efforts, using expertise in distance education, computer technology and special education can provide useful solutions to some of the unique learning problems of handicapped individuals.

Another collaborative venture among industry and training institutions has been proposed for British Columbia. The Discovery Training Network would consist of a network of existing systems and resources using open learning and information

technology for the purpose of providing more effective and efficient training opportunities. Training would be based in a familiar local environment to provide the necessary human interaction and support services. This project, funded by CEIC, aims to upgrade the workforce by training the unemployed, or workers needing upgrading. Handicapped individuals interested in gaining or improving their positions in the workplace could be well served by this program.

Communication Links

This section deals with the channels and process of information exchange among participants within the system including administration, staff, tutors and students - as well as with external agencies and persons related to this system - advocacy groups, governmental bodies, social groups, volunteers, research and development, and business and industry.

Internal

OLI's newsletter, the OLI NEWS, provides an information-sharing and social function with news of activities and current data about the organization. At present, communication channels between tutors and staff at OLI seem to be weak and used only when problems arise, rather than on a regular basis. Channels linking tutors and students are normally the telephone and the mail, and such exchanges are assignment-related. Tutors have an opportunity of connecting with each other at a yearly conference meant to provide updated information and skills. OLI advisors had been invited to attend in the past, but since the budget no longer absorbs their expenses, they no longer attend.

OLI has introduced OPLNET, an innovative trial scheme to improve communication and to reduce feelings of isolation that both students and tutors experience with distance education. OPLNET

is a computer network for use by students, tutors, administrators, librarians and course designers. This system not only greatly increases the number of channels of communication but also removes the barrier of scheduling. Any member may send messages to any other member at a time which is personally convenient (Information Systems Development 1986). The Burnaby Association of the Mentally Handicapped uses a similar network linked with modems to communicate with other interested persons across the province through an electronic newsletter.

A number of other educational institutions have initiated various means of increasing communication among their members. NIC has used both boat and mobile units to link with students; UVIC encourages its students to exchange names and phone numbers among themselves; and Telecollege encourages personal contact and the development of peer groups so that learning does not occur in isolation.

External

An institution's external links provide information about the needs of the population at large and lessen the unnecessary duplication of programs and services which can result without proper communication and co-ordination.

OLI performs an outreach function through its advisory centres. They not only improve communication with agencies external to the organization, but also give visibility to the Institute. Centre staff are involved with public relations, and liaise with a variety of agencies, including community colleges, CEIC, the Ministry of Social Services and Housing, Workers' Compensation and special interest groups.

Community colleges fulfill a liaison role as well. North Island College keeps in close touch with its community so that it may

respond to its needs through curriculum and scheduling procedures. Douglas College is successful in this area as well. It has set up an advisory committee made up of community and college representatives to identify needs and issues and to strengthen community links.

Project Coordinate was an initiative to link the school and college systems in the Surrey area so that they might identify shared needs in special education and exchange information and expertise to address these needs. This program has important implications for handicapped students since one of the greatest fears of secondary special education students is that at eighteen or nineteen, they are abruptly pulled out of a system which has supported them all along, and left them with few resources and little guidance to cope with the system on their own. Thus, Project Coordinate focussed on the links leading to development of programs and services designed to ease this critical transition.

The Walter Dinsdale Disability Information Service Centre of Canada was established to "involve the collaboration of public and private sources at national and local levels to meet information needs of disabled persons, their organizations and rehabilitation professionals" (Government of Canada 1986, p.1). Information is available through a computer-based, referral index linked to community information centres, libraries and independent living resource centres.

Closing the Gap is a comprehensive up-to-date newspaper dealing with computer technology for special education and rehabilitation. This publication becomes another strong communication channel to link those concerned with technology for adult special education.

Tuition:

This section covers the areas of advising, counselling, tutoring and special assistance.

a) Advising/Counselling

Budgetary restraint appears to have affected the advisory/counselling role of the provincial open learning institutions particularly heavily. While advising services have shrunk, student enrolments have not. The Lower Mainland advisors are overwhelmed by an average of 6,000 phone calls per month, and have little time for other functions such as outreach.

Advisors deal with students primarily by phone at registration, and thereafter usually only when problems arise. Advisors deal mainly with academically-related issues and have no mandate to counsel on personal matters. There is no time for in-depth career planning, so advisory centres offer a distance course called "Planning Your Future". Students needing more attention are referred to local resources, such as a college or university for career planning. Students at OLI are not assigned a particular advisor and cannot be assured of maintaining continuity with one advisor throughout their course of study.

For a time in 1979, OLI employed a special needs advisor, but this position was subsequently cut. Fortunately, OLI has recently renewed this service with the appointment of another special needs advisor who provides supportive and educational advice to students identified as disabled. He also acts as a resource person for OLI tutors and staff, and performs a liaison function to those external agencies who provide services to the disabled and an information function

regarding technology's role in helping disabled students at a distance.

Douglas College provides a comprehensive advisory and counselling program for handicapped students within its ALRC operation, and VCC has appointed special needs advisors to attend to the unique problems of handicapped students, especially those with sensory impairment or mental handicaps. NIC and Telecollege do not appear to address handicapped students as a separate group but address their particular needs on an ad hoc basis. The University of Victoria provides direct individual counselling in personal and vocational matters, helping students build their own individual road maps.

b) Tutoring

Most distance/open learning institutions in B.C. use tutors to support the learning materials. OLI employs about 150 tutors, primarily part-time, to give students academic support and the needed human contact with the institution. Tutors are accessible by phone to students at specified times, and their role is strictly study-related. However, because they are usually the student's only personal contact with the institution, they are often called upon for help in sorting out and coping with difficulties peripheral to study.

OLI tutors are not given any particular training related to special education or open learning. They are hired primarily for their expertise in a subject area and/or teaching experience, but are supplied with a tutor manual which may serve to inform them about OLI resources and procedures. Tutors are expected to keep thorough records of student progress in terms of assignments, submissions, marks and

contact hours. Tutors at NIC perform roles as both subject generalists and administrators.

The remuneration and tasks of tutors both at OLI and NIC appear to be issues requiring attention. They receive a relatively low flat rate for their work, in spite of the fact that they are dealing with situations which may require time and expertise beyond the academic tutorial function, as may be the case when tutors assist handicapped students.

c) Special Assistance

It has been the practice at OLI to provide special assistance to handicapped students when a problem arises. Invigilators and taped or braille translations of tests are provided as needed. Most of the time, however, disabled students are left to their own resources in finding readers or other kinds of assistance. It is felt that the key to success in this area is usually the student's own social support networks.

Special assistance is delivered in different ways in different colleges. VCC has assigned a number of personnel to lend special needs assistance. Both Camosun College and Douglas College have assigned this role to designated positions. Douglas provides assessment, individualized support services focussing on compensatory learning strategies, skills workshops, liaison with instructors, administration and other staff. Camosun college also administers a student-mentor program to support disabled students with volunteer mentors trained and concerned with all aspects of student development.

At Douglas College there is a realization that special support is required throughout a student's educational career. To address this need, peer tutoring is encouraged and

support is provided through the efforts of a special needs counsellor who works closely with the student and teacher to adapt procedures and facilities, and to provide on-going support.

Funding

The Ministry of Advanced Education and Job Training allocates funds to post-secondary institutions by means of a complex formula. Funds are granted according to full-time equivalent enrollment in a program. Support service costs are provided on a differential or weighted basis dependent upon a number of factors related to support costs. Handicapped students in mainstream programs do not presently enable an institution to receive a special weighting, while disabled students in a segregated class do qualify for additional support funding.

Funding by formula is a result of quantifiable registration. Since many student services are not easily measured, there is presently no additional funding within the formula to cover the extra expenses involved in addressing handicapped adults in regular or mainstream classes.

In addition to formula funding, the government established a special $400,000 fund available to post-secondary institutions which require financial assistance in providing appropriate student support services for handicapped students. This past year for the first time, OLI requested and received some of the funds.

Financial Considerations

Almost every aspect of educational practice is dependent upon a financial consideration. This section touches upon some financial considerations of the student.

Costs to handicapped students vary. Special materials and equipment can range from minor additions to major technological adaptations. Added to this are the regular tuition costs borne by all students. Many handicapped students are caught, like others, in a vicious circle of needing education to earn a living, yet not having the necessary funds to obtain the education.

Financial assistance is available to handicapped students in B.C. from a number of sources, including Vocational Rehabilitation Services, the Ministry of Social Services and Housing, Canada and B.C. Loans, and private agencies. It seems, however, that most student loans are available only for full-time study and those loans which are available for part-time study must be repaid within 6 weeks. This is a problem for many handicapped persons who, because of their particular circumstances, choose part-time study as the best option.

The Handicapped Student

Little in the way of statistics exists for the numbers, types and severity of handicapped people in B.C. However, isolated bits of data from various sources do give a rough picture of the present situation. Kaushansky (1986) cites a 1984 census which indicates 20,500 severely mentally handicapped adults between the ages of 19 and 65 in B.C.

Another source estimates that 15 percent of the adult population at large have learning disabilities (Ministry of Education 1984a). According to another ministerial discussion paper (Ministry of Education 1984b) there are between 6,000 and 10,000 persons in B.C. with hearing impairments. One trend is clear. More disabled youngsters, used to mainstream approaches, will be

graduating from secondary schools and expecting normalized opportunities at post-secondary institutions (Appendix 4).

Community colleges, advocacy groups, and the students themselves are all valuable sources of information about the disabled student which can be tapped.

For many handicapped students, the greatest need in education is communication - the giving and receiving of messages in such a way that they are understood. The blind need ways to communicate with the sighted; the deaf need the means to relate to the hearing; the mentally handicapped need ways to build a common and shared understanding, the learning disabled need alternative ways of reading and writing information, the emotionally and neurologically impaired need help in removing the discomfort, anxiety or pain involved in social interaction.

Some disabled students, especially mentally handicapped, learning disabled or some physically disabled students, because of their particular conditions, require longer periods of time to acquire learning or to practice skills.

Although many handicapping conditions are easily identified, some may be hidden, both to the observer and to the individual. A learning disability is one of these conditions. Lack of adequate diagnostic services in most open learning systems often prevent this disability from being uncovered and dealt with.

Many disabling conditions may provoke some negative mental states which could go unnoticed in a distance education context, given the minimal personal contact with the student. Lack of confidence, motivation, and fear of failure are common problems of handicapped individuals which may inhibit success.

The varied needs of handicapped students make clear the importance of placing education within a societal context. If indeed the purpose of special education is to allow handicapped individuals to become independent, then open learning must be placed in the context in which the handicapped live or work. This includes not only basic living skills, but also knowledge and skills of the workplace in which they will earn their living. Programs offered in isolation from a societal context cannot hope to succeed. Many handicapped adults are unprepared for the competition and lack of support within the mainstream, yet distance education expects the student to be autonomous.

Many job preparation programs recognize the need to prepare handicapped adults for the workforce. Some, like COPD (Computer Applications for the Physically Disabled) give students knowledge of the workplace and help them overcome a fear of social interaction by placing learning in this context (Malaspina College 1985). Using computers, physically disabled students gain a sense of belonging and competency which is new to many. They discover the capability of the computer as a tool to extend their personal capabilities, and more - to control their environment.

CHAPTER IV

BRITAIN

What Exists

This chapter reviews the pioneering work of Britain's Open University together with other innovative open learning and adult special education schemes in Britain. The various institutions and agencies included will be briefly introduced to provide a framework for what exists in Britain.

There are a number of agencies in the business of open learning and special education in Britain. These bodies may function at the national, regional or local level and vary in their degree of involvement as well as their priorities. (Appendix 5)

The **Open University** (OU) is the British model closest to British Columbia's educational structure, and has earned a reputation for its innovative approach to open learning. The OU has been in the business of distance education for seventeen years. Its unique approach to university program delivery has made it the focus of interest in the educational community world-wide. Today, the OU continues to develop and improve its educational provision to handicapped adults whose per capita enrolment in the O.U. is far greater than any other university in Britain.

Besides its public broadcasting role, the **British Broadcasting Corporation** (BBC) has a separate unit which works within the OU to develop and deliver broadcasts directly related to the university's course materials.

The **Open Tech** is a program established by the Manpower Services Commission (MSC) as part of the government's Adult Training Strategy. Open Tech uses an open learning approach to "expand the range and flexibility of the training opportunities available

to adults" (Bradley and Hegarty 1981). It was funded by the MSC for a four year period to end in the Spring of 1987, and functions through collaborative efforts with existing educational institutions to provide an educational response to industrial needs.

The Department of Education and Science (DES) funds a special division called the **Further Education and Curriculum Development Unit** (FEU) which deals specifically with special education. Like the Open Tech, the FEU was set up to develop flexible learning opportunities for all post-16 individuals, regardless of employment status or educational purposes, so that educational accessibility is enabled.

The **National Bureau of Handicapped Students** (NBHS), is a national voluntary organization concerned with the education of handicapped adults throughout the United Kingdom. It performs an information and advisory service for students and staff in educational institutions, local education authorities or business and industry. It also promotes research, publishes vast amounts of literature on the subject and monitors governmental policies regarding adult special education.

Local Education Authorities (LEA) are divisions of the Department of Education and Science which address educational needs locally. Their post-secondary provision coordinates educational efforts within their districts, and networks with other LEA's throughout Britain. They provide funds, facilities and consultation in many areas, including special education.

Because of the Open College component of British Columbia's Open Learning Authority, it might be interesting to include a brief account of a proposed broadcasting initiative in Britain. The MSC's **College of the Air**, will be initiated in September, 1987. Its purpose is to collaborate with all those involved in open

learning and broadcasting in order to increase the accessibility of vocational training. Students will be affiliated with a training centre near their home or within their workplace. Such centres will provide counselling and tutorial support as well as equipment. A unique feature of the College of the Air will be its industrial and commercial sponsorship.

Each of these agencies makes a contribution to the provision of open learning for Britain's handicapped population. Their particular involvement will be delineated within the following areas of investigation.

Policy

The Open University in Britain has a clear policy statement which recognizes its responsibility to meet the educational needs of handicapped students. It makes particular reference to the areas of admissions policy, provision of information and advising services, full participation of students, occupational considerations, research, liaison with external agencies, financial support - and equal rights. Policy formation at the OU is the responsibility of three internal bodies: a research committee, an institutional committee, and the Institute of Educational Technology (IET), all of which examine student progress, course development, faculty performance and course evaluation.

The BBC has a strong social conscience, and uses its broadcast facilities to examine a wider range of social issues. Its affiliation with the OU reflects its commitment to the provision of educational opportunities for all. However, no BBC policy seems to exist regarding needs of handicapped adults in particular.

The Open Tech's policy involves flexible training opportunities for those needing them, but generally does not identify special education as a distinct concern. It has, however, developed projects which are directed towards a particular handicapped population.

The FEU has a strong policy commitment towards the provision of education to handicapped adults, and has structured a special unit to address this clientele.

NBHS is organized around its policy to improve the educational status of handicapped persons by coordinating, publishing and distributing information to the concerned public.

The specific policy of individual LEAs towards the education of handicapped adults was not investigated. However, in practice, many of these regional authorities direct institutions within their purview to support the provision of open learning opportunities for disabled adults.

Organization/Structure

The OU is a large educational organization with 6,000 staff members. Its organizational structure is made up of several divisions, some of which include:

- Regional Academic Services - attends to both central and regional matters including tutoring, advising, counselling and the Office for Students with Disabilities.

- Operations - responsible for the actual development and production of materials.

- Centre for Continuing Education - self-funded and serves a mass audience in such areas as community education, and to specific professional development groups.

- Administration - responsible for academic, financial, internal, audit, management and staff issues.

- Academic Advisory Committee - made up of members of the academic community, which establishes and reviews academic standards for the OU.

- Liaison Committee for the Disabled - made up of representatives from various voluntary agencies, and an internal Coordinating Committee for Disabled Students.

Academic Services are structured around the Central Office in Milton Keynes, 13 Regional Centres, and 260 study centres. Courses are developed at the OU through the efforts of course teams. The materials produced are primarily print and are delivered by correspondence. Educational materials are supported by counsellors and tutors located at Regional and Study Centres.

The BBC works with the OU in developing and delivering broadcast materials to support the print material. Programs are broadcast primarily on weekends and off-hour week days.

The Open Tech works directly with business and industry to produce and sell self-standing instructional materials which address needs of the workplace. The Open Tech is not an institution, but a method for addressing training needs. A task group consisting of educational technology, industrial and marketing expertise, cooperate to ensure relevant, up-to-date content and efficient process and boasts 140 successful projects thus far. They may interface with the OU through its Centre for Continuing Education.

The FEU special education unit has over a dozen development offices, and works closely with other agencies involved in adult special education, encouraging them to be more responsive and flexible.

The NBHS operates independently, but is linked through its membership base to a number of institutions, organizations and individuals. Its various sections include information dissemination, advising, publications and consultation with government, institutions and organizations.

Administration/Process

The central, regional and local bases of the OU each perform different roles. The largest single component of the OU is its home office at Milton Keynes. There, a number of functions are performed including:

- policy formation
- planning and development of programs and courses
- production and sale of materials
- registration
- delivery of courses through the postal service or the BBC
- mass mailings common to all students
- record-keeping through on-line computer data base
- organization of summer schools
- advisory office on the Education of Disabled Students

The OU Regional Offices perform in a different capacity. Here, academic and clerical staff deal with:

- administration
- student recruitment
- staffing of part-time local tutors
- organization of study centres

- examination of programs and courses
- provision of counselling services
- provision of a local face for the university
- staff development
- provision of feed-back from the region and faculty to the home office

Study Centres are essential components of the OU, providing local contact with the university in a number of functions:

- brokerage of existing local resources
- provision of a discussion arena
- liaison with local institutions in continuing education, local education authorities and industry
- oppportunities for human interaction in learning
- encouragement of self-help groups
- lessening of distance

The admissions procedures at the OU maximize the possibility that a problem due to a handicap is identified. The application form (Appendix 6) invites the student to disclose a handicap which might make studying difficult and states clearly the OU's intention to help. Handicapped students are registered through normal channels unless a problem arises, at which time they may gain special assistance. Students enroll by mail, and once a handicapped student has been identified, they are strongly encouraged to meet or be visited by an OU staff member. This person assesses the problem and provides assistance in planning and study.

The academic year at the OU runs from February to November, with strict adherence to scheduling. For those who have difficulty keeping the pace, extra tuition and help is provided. Students are admitted on a first-come, first-served basis, limited to

regional quotas. A student becomes "official" only after remaining in the program one month.

Record keeping is important at the OU in order to identify and deal with student problems. The University has found that by following up students who drop out, including the disabled, valuable information is provided on potential problem issues. Regional centres are responsible for monitoring handicapped students and in 1986, nearly 5 percent of the student population had been identified as disabled.

Open Tech projects are self-sustaining undertakings in their own right. Their main business is to produce and sell self-standing educational materials, and to convince colleges and universities that open learning is a viable, efficient and effective way of providing education. Thus, the Open Tech focusses not only on design, but also on marketing.

Polytechnics are contracted to develop projects reflecting industrial needs. Students within the program are usually employed, and the employer buys the materials, administers the programs, and monitors and supports the students.

The BBC Educational Broadcasting service is made up of advisory panels, whose members represent various organizations within the community at large, who identify issues to be addressed. The producer then develops a set of programs in a series which deals with the concern. Education officers link with community representatives in order to facilitate viewing groups.

Programming
Open University

Courses are produced at the OU by course team members. Course teams may include academics, content specialists, educational

technologists, staff tutors, BBC editors, designers, producers, and a course manager. Since course teams necessarily work at a distance from the teaching and the student, regular contact is made with those dealing with students. Team members become excellent resources for tutors needing information about how a course might present problems, or how it might be adapted without lessening standards.

The OU has a unique approach to the programming offered to students. Foundation courses, which provide frequent interaction with staff and other students, are mandatory in the first year. They help students renew the experience of being a student, introduce the broad content chosen, and provide an opportunity for students to build support networks with each other. In addition, the tutor-counsellors are able to build a rapport with students and get to know their particular problems. This is especially helpful to handicapped students.

Many students need preparatory courses prior to study, in order to develop the basic skills and knowledge necessary for independent learning. OU advisory centres offer such courses, including some that are directed at a particular group such as the visually or hearing impaired.

Summer school is not essential in the foundation year, but is mandatory thereafter to provide the benefits of face-to-face interaction which may be missing in the post-foundation courses. Staff go to great lengths to accommodate handicapped adults so that they may attend.

Handicapped students needing course modifications or special permission to submit late assignments are dealt with on an individual basis. This ad hoc approach often causes adapted course materials to arrive very late, so disabled students are

discouraged from taking newly developed courses in the first year.

Courses consist primarily of printed materials, with a radio or television component, and/or audio/visual cassettes and kits. There is an assumption that libraries will be inaccessible, so courses are developed to eliminate the need for library research. Course developers are beginning to look at computers as an integral part of OU courses. This would make library access via the computer possible.

Visually impaired students have access to Braille House, a Royal National Institute for the Blind (RNIB) library facility working closely with the OU, which functions as a clearing house for transcribed or taped materials. The needs of the blind have also been addressed by Dr. Tom Vincent, who has developed some quality materials within his OU Computers and the Blind project (Vincent 1985). This project demonstrates the practical applications of a speech synthesizer with computers. This technology provides an acceptable means of communication, and overall, is cost effective as well. Although up-front hardware and special software costs are high, replication costs are minimal, and hardware costs are decreasing. Vincent feels that ownership of special equipment by handicapped persons is important for sustaining communication abilities, and extending learning throughout their lives.

Open Tech

Programs through the Open Tech are directly responsive to industry's needs. The competency-based packages contain printed modules, and sometimes audio/visual tapes, kits or computer software. They are totally self-contained, can be used anywhere, and are mass marketed. Open Tech materials are more specific than those of the OU, and do not usually have an evaluation

component, since employers are looking for competence, not exam scores.

Further Education and Curriculum Development Unit (FEU)

This arm of the DES stresses flexible learning opportunities in most of its programming. The unit has researched the question as to why education is inaccessible to those who wish it. This research resulted in programs which are flexible rather than structured. One unit in the FEU deals strictly with special education, where course developers examine obstacles to learning for handicapped adults, and search for ways to remove them. It has been demonstrated that the greatest obstacle to learning for handicapped persons lies in the attitudes of others towards them. The FEU asks institutions to review their own educational processes, and then prescribes a framework for addressing any obstacles to learning.

BBC

The BBC unit which collaborates with the OU, works as part of the course team in the OU's programming efforts. The BBC educational broadcasting unit, on the other hand, is a separate entity which develops different programs in a different way. While the target audience is the general population, the BBC encourages the formation of special viewing groups which have a greater chance of affecting viewers' attitudes. The BBC supplies groups with printed materials and discussion questions as well as video tapes. It has been shown that the effects of these educational programs snowball, by getting people to think about this problem, talk about it and most important, act on it.

Department of Trade and Industry

In addition to these traditional providers of open learning opportunities for handicapped adults, an initiative of the Department of Trade and Industry warrants mention. It has sponsored a two-year scheme called Concerned Technology, by investing two million pounds to promote the use of information technology with disabled persons. It funds equipment and projects for this purpose, including a recent trial effort involving remote work units. These units entail computer applications that permit disabled persons to learn and work in their homes.

Communication Links

Because of its large staff and student body, the OU needs strong internal communication channels. One of these is Sesame, a newsletter which covers a wide variety of topics relevant to students and staff throughout the system. There is a separate newsletter which addresses issues unique to handicapped students.

The OU Students' Association encourages ongoing communication among OU students. As well, a regional consultative committee composed of representatives from regional staff, students and tutors, meets three times a year to discuss policy formation, student progress, course development and self-evaluation.

With a large and dispersed full-time and part-time staff, sharing information about special needs can become a problem. The Office of Students with Disabilities has taken up this challenge by producing a clear and comprehensive manual with information on:

- OU Policies and Procedures Regarding Handicapped Adults
- Guidance Notes on Specific Disabilities
- Key Organizations and Contacts for Handicapped Adults

Outreach is also an important OU activity and serves as a means of increasing visibility and assessing needs. This function is performed primarily through Regional Centres, which are encouraged to build their own local networks of resources, by linking with agencies in their areas which are concerned with open learning and/or special education.

The NBHS has developed a multi-disciplinary network of regional organizations working to improve educational opportunities for their particular region. Membership includes a subscription to their journal EDUCARE.

A recent government report entitled "Educational Opportunities for All?" reviewed the provision of educational services in Britain to meet special needs, specifically in respect to the following issues:

- strengthening the principle of equal opportunity
- providing a social context for special education and supportive statistics
- the importance of staff development and inservice training
- provision of interagency links

As a result of this report, the Inner London Education Authority (ILEA 1986) initiated a widespread consultation involving directors of colleges, polytechnics, institutions, area LEA's and voluntary agencies involved with disabled persons. Its purpose was to develop and recommend strategies to meet special needs in areas indicated by the report. This consultation, and its productive results, are an example of the British educational system's faith in the strength of interagency collaboration.

Britain is also developing computer technology to improve communication. It has introduced a public view computer data system called PRESTEL, one subject area of which is devoted to

Special Educational Needs. PRESTEL permits up-to-date research to be accessed through a spreading computer technology.

Tuition: Advising, Counselling, Tutoring and Special Assistance

The OU makes no finite distinctions among the roles of advising, counselling and tutoring. These services come together under the term tuition, recognizing the multiple interrelated problems students might have and the absurdity of trying to isolate or compartmentalize them.

OU personnel respond to these needs at the regional and study centres levels. Senior counsellors work out of the Regional Centres and are responsible for a particular geographic region. They support tutor-counsellors and provide direct advice to those requiring it. One senior counsellor in each regional office is responsible for handicapped students and performs essentially an advocacy role.

Staff tutors at the regional centres oversee part-time tutors and provide feedback to the central course teams on the reception of courses. Staff tutors also organize day schools and provide for staff development.

Staff working primarily through study centres include tutor-counsellors and tutors. Tutor-counsellors make initial contact with students who are assigned to them, and work closely with these students during their foundation year. During this time they build up a relationship with the students which becomes a valuable link in later years when face-to-face contact is drastically reduced. This continuity is especially important to handicapped students who may need continuous support throughout their program. Tutor-counsellors may meet students at study centres or in the students' homes, but primarily they contact students over the telephone. Tutor-counsellors also lead group

discussions, with tutors and students participating through teleconferencing. This is of particular benefit to the home-bound who have little opportunity for interaction with fellow students.

The tutor is a content generalist who is paid on a per-course basis, and whose role is to attend to academic issues. Although staff development is not a priority at the OU, an optional briefing or training session is arranged for tutors. Students are not assigned to a particular tutor, and may have several tutors throughout their program. Tutors communicate with students through written comments, telephone and occasional group tutorials. Home visits to handicapped students may be provided at times.

Personnel at the OU often work with external agencies like the RNIB to seek advice and the provision of special learning materials or physical devices which may help disabled students. Internally, the Office of Students with Disabilities offers transcripts or tactile devices to support educational materials. The special needs advisor acts as a trouble shooter, providing direct service to students, and intervening in the system where necessary.

OU staff discourages fellow students from tutoring other handicapped students on the grounds that it cuts into time they need to work on their own courses. Instead, OU encourages support for handicapped students from local resources, including LEA's, voluntary bodies and the students' association.

Funding

The undergraduate division of the OU is funded directly from DES. The advantage of this is the OU's direct link to the Ministry. With a cash flow of six million pounds per year,

monies are earmarked for different programs, including special tuition. There is a small base fund, plus an amount per capita for provision of tutors and counsellors for the disabled.

In the past, staff had to rely upon external agencies, or the Office of Students with Disabilities when special needs arose. In 1987, for the first time, the OU has budgeted for special equipment for handicapped students.

During budgetary restraint, tuition funding has been reduced, a cut which has affected all students, including the handicapped. The fear is that, as a result, the university risks greater failure of students and increased drop-out rates and that the stronger students will be attracted to alternatives which provide more support and involvement. As well, counsellor and tutor morale is affected when greater pressure is placed on them to provide services.

Financial Considerations

Open learning is cost-effective because of its large-scale delivery. The OU's cost to the nation is estimated to be one-half that of other universities, and is distributed as follows:

- Academic 20%
- Tuition 22%
- Course production and distribution 11%
- Administration 12%
- Broadcasting 13%
- Summer School 22%

(From an interview with M. Richardson, OU)

When special attention is given to handicapped students, the costs of provision of open learning may rise. Tom Vincent feels that these costs are warranted, however, especially with the implementation of newly developing information technology. Those costs incurred for special residential schools, special assistance, transportation and translations or transcriptions far exceed the costs of technological equipment. Information technology, within an open learning setting, can provide not only a communication medium, but learning which can lead to greater independence for the handicapped student.

CHAPTER V

RECOMMENDATIONS

When attending to the special needs of handicapped adults, remedial actions are often too little or too late. It is therefore important that careful planning is carried out before commitment to a particular action is made. This report is an initial effort in this direction. Its recommendations focus on the process of learning for handicapped adults, and not simply the educational products (Sherwood and Glidewell 1973). This emphasis reflects a belief that the many components of the educational system are in constant flux as is the environment in which it exists. The recommended action plan consists of the following three stages:

1. Sharing Information - In this initial stage, information is gathered and shared about all participants within the educational system, as well as those with external involvement. This data is necessary to identify problems and needs, and to build future solutions.

2. Making Commitments - Based on the needs that are identified, as well as the goals of the educational institution,

   a) policies are formulated,
   b) structures are set up,
   c) roles are defined, and
   d) costs and funding mechanisms are determined.

3. Implementing the Educational Process - This stage encompasses the scope of activities and considerations from the moment students approach an educational institution, until they leave. It involves the tuition functions of advising, counselling and tutoring, the programming activities from

development to delivery, and the internal and external communication links which connect the components of the system.

A truly dynamic system is open to recognizing changes in the status quo, to acting on new information, and to recognizing existing or potential problems. The process becomes ongoing as new data are shared, commitments are changed, and the educational process is revised to restore equilibrium.

A. Sharing Information

Efforts must be made to build upon what already exists before new elements are introduced. It is therefore recommended that:

1. **OLI, KNOW and community colleges involved in open learning, perform a self-evaluation to inventory their programs, services, educational materials, special aids and equipment for handicapped students.**

Needs cannot be addressed until they are known. It is therefore recommended that:

2. **Institutions involved in open learning conduct a survey of registered handicapped students to determine numbers of particular handicaps, and the ensuing special needs.**

For instance, very generally, but not exclusively, it has been found that physically handicapped students primarily need access to education and special equipment to manipulate materials; blind, deaf and learning disabled students have a strong need for course adaptations and academic planning; whereas mentally and emotionally handicapped students primarily need support and guidance. This survey should find out from the student what is working and what is not. For instance, how confident do

handicapped students feel about initiating a call to a tutor to clarify a minor problem?

It is further recommended that:

3. **Each open learning institution set up data banks which:**

   - **include statistics and other information about their own handicapped students**
   - **inventory their own physical and human resources pertaining to adult special education**

These data banks, either in catalogue or on computer should be shared among personnel within the institution, and other open learning institutions, and should be constantly updated.

and further that:

4. **The Ministry of Advanced Education and Job Training and OLA organize a BC Consultation on Open Learning Opportunities for Adults with Special Educational Needs.**

This conference would invite a wide range of interest and expertise in these fields, including handicapped students themselves. Participants would join in a process of sharing information, networking and formulating possible strategies to respond to these needs through open learning. This would be an arena to identify processes and technologies which hold promise in this respect.

B. Making Commitments

Commitments must be formulated out of the basic philosophies and goals of the educational institution, as well as from identified need. If indeed the OLA is committed to equal opportunity and quality education for handicapped students, and aims to promote

opportunities leading to their empowerment, it is recommended that:

Within Policy

5. **OLA develop a clear statement of policy and priorities reflecting an active commitment to open learning for handicapped adults.**

and further that:

6. **OLA expand beyond the confines of distance education towards open learning, which offers a more student-centred approach, acknowledging the varied and unique needs of handicapped students.**

7. **A standing Advisory Committee on Programs and Services for Handicapped Students be established within the OLA which would include members of public and voluntary agencies concerned with adult special education, the post-secondary system, and disabled learners themselves.**

This body would be responsible for advising on any aspect of policy or practice related to programs and services to the disabled. It would report to the President of the OLA and would be empowered to hear from any individual or group concerned with service to handicapped students.

Within Structure and Roles

It has been shown that the wide geographic expanse which OLA must serve presents a number of problems, many of which involve the difficulty of identifying and responding to the needs of the individual handicapped student. Addressing collective needs often results in a hit and miss situation. It is therefore recommended that:

8. **OLA establish a decentralized structure of distributed services which will allocate the necessary functions to address handicapped students, accordingly:**

OLI CENTRAL

- **leadership in development, production and dissemination of open learning materials for OLA and other open learning systems**
- **coordination and organization of OLA processes and programs**
- **centralized record-keeping**
- **Special Needs Advisor - OLA at large**
- **coordination of provincial level interagency links**
- **registration, intake and processing**

OLA REGIONAL CENTRES

- **follow-up on handicapped applicants at registration, as well as all drop-outs**
- **development of diagnostic evaluations and needs assessment of handicapped students**
- **academic planning and orientation for handicapped students**
- **outreach to regional agencies**
- **staff member responsible for advocacy to handicapped students**
- **oversee tutors and tutor-counsellors**

Distance education, by its very nature, can allow needs due to handicaps to be hidden. It also poses a potential danger that handicapped students, many of whom are already set apart from the norm, will be further isolated, not only preventing their integration into the mainstream, but increasing the possibility of withdrawal.

It is equally important to keep handicapped learners in a course or program, as it is to recruit them. This necessitates contact with students which will enable them to be aware of their progress. Colleges in B.C. are strong community-based institutions which if used, can provide this contact and can give OLA a local face. It is therefore recommended that:

COMMUNITY COLLEGES provide:

- **on-going student support**
- **resource centres for materials, readers, invigilators, volunteers, equipment, etc.**
- **liaison with local agencies involved with special needs**
- **study centres, organization of study groups**
- **opportunities for the hands-on component of learning**
- **access to special equipment or technology**

and further that:

KNOW provide:

- **continued support of OLA materials with programming**
- **outreach to the population at large with issues involving adult special education.**

It is further recommended that:

9. **OLA ensure there will be no single department of special education, but that special education be seen as an integral part of every department.**

Within Funding

British Columbia is initiating efforts to encourage more handicapped students to become involved in open learning. All evidence indicates that many handicapped adult learners require a great deal of support in advising, counselling and special adaptations. Such special services and equipment require additional funds. It is therefore recommended that:

10. **The Ministry of Advanced Education and Job Training revise its funding formula to recognize the costs of providing adequate open learning opportunities for disabled adults.**

11. **OLA systematically apply for special funding from the $400,000 special education support service fund of the Ministry of Advanced Education and Job Training.**

12. **OLA allocate substantial base funding to counselling/advising services, and some base funding to adaptations and research and development in adult special education.**

13. **OLA seek additional funding from such sources as the federal government, Workers' Compensation Board, and business and industry.**

C. Implementing The Educational Process

An integrated approach, with instruction and support going hand in hand, is necessary to adequately address the special needs of adult learners. Handicapped students vary in the degree and frequency to which they need support throughout their studies.

It is at this stage that we examine the support functions of TUITION, which include the areas of advising, counselling and tutoring, together with the instructional function of PROGRAMMING, and the COMMUNICATION LINKS which allow their interaction and provide for on-going monitoring of the educational process.

a) Tuition

The social and emotional consequences of a handicapping condition, including past failures, have considerable bearing on academic achievement. Thus the counselling function is an important consideration of any open learning program for

handicapped learners. Borrowing from practice at the OU in Britain, it is therefore recommended that:

14. **OLA introduce a new position of TUTOR/COUNSELLOR, who will follow the handicapped student throughout his/her educational career.**

A tutor/counsellor can provide not only initial, but on-going support which may be vital to some handicapped learners, especially moderately or severely disabled, or homebound students. Lack of functional abilities is crucial enough, but the added damage of social confinement may lead to depression or withdrawal. The more physically and socially remote the student, the more on-going support is needed to cope.

The tutor/counsellor can also help handicapped students maintain their initial motivation and provide continuity of support and assistance. Finally, the tutor-counsellors can monitor student progress and pick up problems before they become acute, such as handicapping conditions which become aggravated by stress and fatigue.

Considering the initial phases of the educational process, it is recommended that:

15. **OLA's registration form be revised to encourage handicapped students to identify themselves, stating clearly its intention to try to accommodate their needs.**

Handicapped students identified at registration will be followed up by telephone and mailed an introductory information package. If necessary, a meeting will be arranged in the person's home.

It is further recommended that:

16. **OLA improve diagnostic practices for handicapped individuals, so that problems related to handicapping conditions can be identified and dealt**

with early, thereby lessening the chance of anxiety or failure later.

17. **OLA provide individualized needs assessment and educational planning for handicapped students, recognizing their uniqueness, so that they can begin the educational process with realistic options and expectations.**

Most handicapped adults have as high an intellectual potential as any other person. Their problems, however, may require them to proceed at a slower pace when learning, or to take off periods of time for medical reasons. It is therefore recommended that:

18. **OLA practices adhere to the notion of flexibility, in such areas as scheduling, admissions, program duration, evaluation measures and modes of delivery.**

19. **OLA develop a more comprehensive orientation for handicapped students.**

Tutoring is a vital service of open learning for handicapped students. OLI tutors have been the glue which has kept the institution and its students together. Tutors often work in excess of what is expected, in isolation, and sometimes without the necessary skills and information needed to cope with certain handicapped students. It is therefore recommended that:

20. **OLA formulate a new fee structure for tutors which would acknowledge the extra time required for handicapped students.**

21. **OLA amend the tutor handbook to include a comprehensive section on educational implications of handicapping conditions and a directory of internal and external human and physical resources for tutor use.**

The growing use of advanced technologies within open learning, and the potential increase in handicapped student registrations, indicate that special training of tutors and others who work

closely with handicapped learners will be required. It is therefore recommended that:

22. OLA provide regular in-service workshops for tutors, tutor-counsellors, and advisors.

These workshops would:

- sensitize participants to the characteristics and needs of handicapped learners
- provide skills needed to help students learning at a distance
- provide links with other tutors for the purposes of building support and enthusiasm, and sharing solutions to problems.

Delayed feedback to students in open learning presents problems. It is therefore recommended that:

23. OLA develop ways to provide more immediate feedback to students, through both human and technological means.

24. OLA produce a special brochure for handicapped students at registration, which would indicate the availability of special services and attention <u>if necessary</u>.

Such a brochure would include information on such matters as:

- time line flexibility
- assignment mode flexibility
- funding sources
- human resources such as special needs advisor, counsellors, and tutors, as well as volunteers
- physical resources such as tapes, braillers, computer adaptations

- special services such as CILS, and those of advocacy groups

Handicapping conditions and the ensuing problems are often lost in the general attrition which is expected within distance education. With a move toward a pro-active approach, it is recommended that:

25. OLA institute follow-up procedures on all students to determine whether withdrawal was due to a handicapping condition which OLA was unaware of or did not accommodate.

b) Programming

Just as with tuition, there are no categorical answers for approaches to programming for handicapped adults. The differences among handicapped students vary. Not only are there several types of handicapping conditions, each one has various degrees of severity, and many handicapped students have multiple handicaps. Each case presents different educational implications. For instance, "moderately physically handicapped" may include a paraplegic perfectly capable of using his or her hands, or a student with a disease of the nervous system resulting in impaired manual dexterity.

It is therefore recommended that:

26. Programming practices address the consequential effects of the handicapping condition which could affect learning, rather than the condition itself.

These effects have been categorized by the Open University as follows:

- mobility
- manual dexterity
- visual problems

- hearing problems
- oral communication
- fatigue
- comprehension

(adapted from OU's Disability Handbook)

27. OLA course teams design programs which are capable of being individualized.

All learners need to develop skills of information retrieval to survive in an age of information. Within programming, library skills require attention. It is therefore recommended that:

28. OLA encourage the use of the library within their programs, especially the use of CILS for students with visual impairments, or learning disabilities.

Many, if not most, handicapped adult learners seek education as a means toward future employment. Glen Farrell, Acting Principal of OLI, noted in an interview in OLI News (Nov. 1986) that one of OLA's highest priorities is in job training and retraining. Education does not exist in a vacuum but has a social and vocational reality. It is therefore recommended that:

29. OLA course teams place subject matter in a career context as much as possible.

30. OLA course teams seek input from the workplace as well as from special education perspectives.

Technology is an integral part of open learning because of its many individualized applications and its capabilities of assuming some of the roles of the teacher.

Television can be effective in involving students in the learning process, and together with the video cassette recorder, can conform to an open learning system by offering educational programs at a time and pace of the student's choice. Television

can assume a complementary role to counsellors, advisors and tutors by providing programs of value to a large number of students. It is recommended that:

31. KNOW produce orientation and study skills programs, parts of which relate to disabled adults.

KNOW can also address the needs of handicapped adults by making the general public aware of the handicapped person's situation. The Association Committee on Research and Development for Rehabilitation of Disabled Persons (National Research Council of Canada 1986) "believes that existing attitudes towards disabled and handicapped persons continue to create barriers to employment and to integration into the community. Expanded programmes to provide information about the nature of the disability and handicap and the needs of disabled persons are required" (p. 9). If OLA's intention is to promote integration of handicapped persons into the mainstream, it is recommended that:

32. KNOW broadcast general interest programs which draw attention to both the needs of disabled persons, and their abilities.

It is further recommended that:

33. KNOW determine the feasibility and value of providing closed captioning for OLA programs.

The computer is being used to an increasing extent within adult special education. It can provide handicapped students with a communication device and self-paced instruction which can respond to many differences.

Computers can provide handicapped students with both physical and emotional control of their environment, which may ultimately lead to independence and employment. The computer, along with other special equipment, can provide handicapped students with the tools for learning and the tools for living. It is strongly recommended that:

34. **OLA initiate a pilot project using computers with handicapped students.**

35. **OLA seek ways by which handicapped students may OWN their own special devices and equipment.**

c) Communication Links

Communication networks provide both the vital channels through which the various components of the educational system interact, and the connections which tie these components together. Strong communication links not only provide exchange of information, but facilitate collaboration.

Feedback mechanisms - To maintain stability and productivity, systems must have on-going means of monitoring their performance and environment. Through this process, new information is gathered and fed back into the system through its communication channels. It is recommended that:

36. **OLA improves its outreach function to the community by strengthening existing networks, developing new ones and tapping into special education networks.**

37. **OLA News carry more information about and for its handicapped students.**

38. **OLA continue to expand the OPLNET facilities.**

39. **OLA enable advisors, and tutor/counsellors to attend the annual tutor conference.**

40. **OLA Central, Regional Centres and community colleges subscribe to Closing the Gap and link with the Walter Dinsdale Disability Information Service Centre of Canada.**

Collaborative Efforts - With limited funds and limited expertise in adult special education, the OLA must either collaborate with external agencies, or risk the possibility of cutting services or reducing quality of services and programs. Potential collaborative ventures would include those with private industry,

who have the ability to develop and/or supply more effective technology and materials for adult special education and open learning as well as to address employment needs of handicapped students. Other educational institutions could share resources, workload and funds, and advocacy groups can provide quality expertise regarding special needs, as well as equipment and/or financial aid. It is recommended that:

41. **OLA initiate collaborative schemes with external agencies which can best contribute to addressing special needs.**

42. **OLA explore the possibility of developing a pilot collaborative model along the lines of Project Coordinate.**

D. **Further Investigation**

There remain some important issues for which there are no immediate answers but which warrant further investigation.

The value of computers, teleconferencing, VCR's, special telephone and television devices, interactive video, and more - has been demonstrated through a number of applications in teaching and learning.

The computer especially, has the potential of allowing students to learn at a rate, time and place of their choice. What is needed now is research into:

1. **The potential of the computer in an open learning setting for handicapped learners**

Particularly:

- What educational functions can the computer best address in this context?

- What skills must support persons have to help handicapped students learning with computers?

- How can special courseware for handicapped learners be improved and increased?

2. **The feasibility and potential value of developing a program of foundation courses for those, such as handicapped learners, with uncertainty and difficulty in the initial or entry level stages.**

3. **Testing procedures which accommodate differences in needs and abilities, while maintaining standards.**

Research into education for handicapped children is 50 times greater than for adults (Cassidy 1983, p.5). It is further recommended that:

4. **Further research is directed to the area of adult special education, especially in regards to open learning.**

Finally, there is still much uncertainty and ambiguity surrounding learning disabilities and emotional/social handicaps. It is therefore recommended that:

5. **The areas of learning disabilities and emotional/social handicaps be addressed more thoroughly in terms of open learning implications.**

Conclusion

This report has presented some of the more pressing issues in respect to quality open learning opportunities for handicapped adults. Interagency collaboration, sound policies, individualized procedures, comprehensive tuition and a flexible approach will have a vital bearing on the success of efforts to this end.

The recommendations are designed to provide decision-makers with some practical means of addressing these issues.

If these recommendations are implemented in a systematic and gradual fashion, open learning in British Columbia can present handicapped British Columbians with opportunities to advance - by accommodating their differences.

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Appendices

1. Letter of Delimitation
2. Chart - The B.C. System
3. OLI Registration Form
4. Graph - Secondary School Enrolment of Disabled Youth in B.C.
5. Chart - The British System
6. O.U. Registration Information

Appendix 1

Province of
British Columbia

Ministry of
Advanced Education
and Job Training

Parliament Buildings
Victoria
British Columbia
Canada
V8V 1X4

June 1, 1986

Ms. Anne Miller
103 Alston Road
Pointe Claire, Quebec
H9R 3E2

Dear Ms. Miller:

Approval has been granted for the distance education/adult special education project in which you will be engaged. I thought it might be useful to provide you with some background information as you prepare for what should prove to be a most challenging and worthwhile project.

The project topic, namely and investigation of distance education programs and services to disabled adults in British Columbia and through the British Open University had its genesis last fall. Then, at a meeting of the Ministry Advisory Committee on Adult/Continuing Education the future of distance education in B.C. was discussed. Dr. Ian Mugridge, a Committee member, and I expressed our belief that some adult special education needs could be met via distance learning but that there was a need to know how to best strengthen provision in British Columbia. Following this exchange of views, a preliminary lilterature review by our Ministry of Education library, including an ERIC search, indicated that there appeared to be a dearth of information regarding policy and practice in this field in any English-speaking jurisdiction.

Receipt of a graduate research report by Michael Paul (University of Victoria, March 1986) sparked further interest as it contained several recommendations in the area of policy, data collection and funding calling for strengthening distance education programs and services to the adult disabled. In sum, there appears to be a real need for a study of existing and possible future policy and practice in this area.

The project steering committee will be composed of Dr. Ian Mugridge of OLI, Dr. Richard Pearce of VCC - KEC, and myself. We feel that your project could usefully conclude with recommendations in a number of areas including policy and governance, administration, programs (including curriculum development), support services, and funding. You may well find new areas of recommendations and should feel free to revise the project outline accordingly.

There are a number of constraints and delimitations on your study of which the steering committee is aware. Because we wish the report by early January, 1987 the time-frame is necessarily short. Similarly you will be conducting this study with very limited funding. Doubtless both more time and more funds would enable you to engage in a broader and deeper investigation, however the practical constraints of the public sector intervene. Perhaps these constraints are even clearer as you recognize that the steering committee has decided that your study must be limited to the public sector, namely public educational institutions and ministries. The views of the handicapped or their advocacy groups, while not part of this project's terms of reference, would doubtless be a useful and interesting subject of another study.

I trust, however, that you find the decisions of the steering committee useful in terms of the individuals and institutions which it will arrange for you to visit. One college is strictly urban, another draws upon a suburban clientele, while a third serves small towns and remote communities. We have also arranged for one special education professional to come down from north-central B.C., however you will doubtless recognize the "Lower Mainland" bias in your sample and the special challenges and opportunities which distance education providers face in serving the disabled who live in non-metropolitan areas.

We look forward to your visit to British Columbia and trust you will find your project both personally and professionally rewarding. Since both the newly-created Open Learning Authority and the newly-formed Ministry of Post-Secondary Education will be developing their distance education policy and practice your report should be most timely and helpful. I am sure you share with me the belief that the imaginative and humane application of distance education methods could prove of great benefit to many disabled adults.

Yours truly,

Ron

Ron Faris, Director
Continuing Education Programs

FORMAL PROVIDERS OF OPEN LEARNING AND/OR ADULT SPECIAL EDUCATION PROGRAMS AND SERVICES

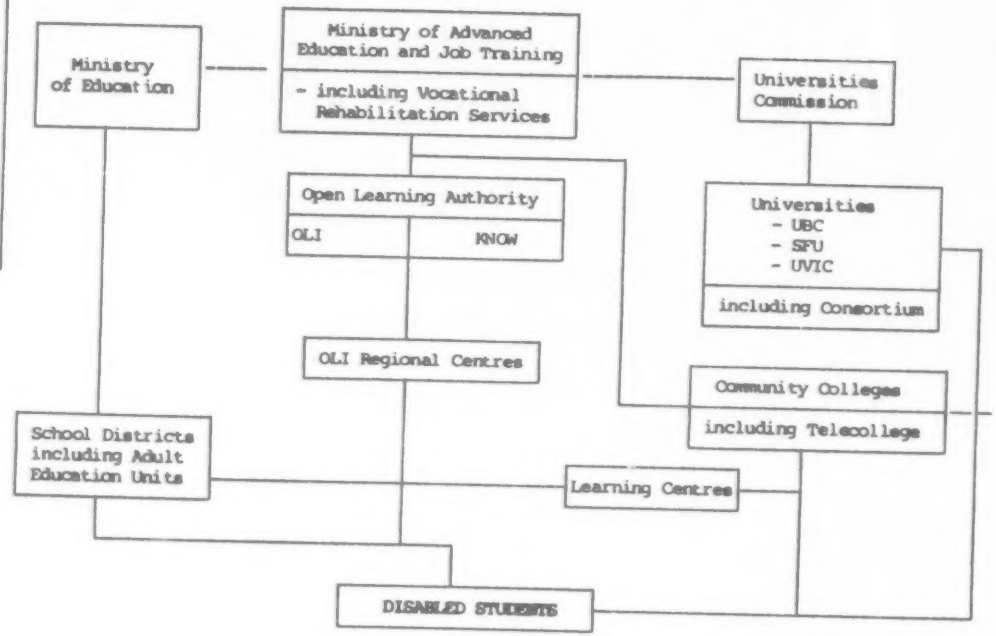
FEDERAL AND PROVINCIAL AGENCIES

- potential purchasers of programs and services

Federal - CEIC

Provincial Ministries

- Social Services and Housing
- Health
- Worker's Compensation Board



BUSINESS & INDUSTRY

- potential employers & providers of specialized equipment

SPECIAL NEEDS GROUPS

- provincial and local bodies
- provide advocacy, expertise and specialized equipment

——— direct relationship
- - - - liaison relationship

THE BRITISH COLUMBIA SYSTEM - DECEMBER, 1986
(SIMPLIFIED)

OPEN LEARNING INSTITUTE

Registry, Box 94000, Richmond, B.C. V6Y 2A2

ADMISSION/REGISTRATION

PLEASE READ INFORMATION ON REVERSE BEFORE COMPLETING. PRINT CLEARLY

HAVE YOU BEEN REGISTERED AT OLI PREVIOUSLY? ☐ YES ☐ NO IF YES, GIVE YOUR OLI STUDENT NUMBER

PERSONAL DATA

SURNAME (FAMILY NAME)

GIVEN NAMES — IN FULL AS ON BIRTH CERTIFICATE

TITLE ☐ Mr ☐ Mrs ☐ Miss ☐ Ms

DATE OF BIRTH Day Month Year

SEX ☐ M ☐ F

ORIGINAL SURNAME IF MARRIED, WIDOWED OR DIVORCED

HOME TELEPHONE NUMBER Area Code

MARITAL STATUS ☐ Single ☐ Married

MAILING ADDRESS

MAILING ADDRESS — 2nd LINE IF NECESSARY

BUSINESS TELEPHONE NUMBER Area Code

COUNTRY OF CITIZENSHIP

CITY, TOWN, VILLAGE

PROVINCE

POSTAL CODE

STATUS OF VISA — if Non-Canadian ☐ Student ☐ Visitor ☐ Landed Immigrant ☐ Diplomatic

SPECIAL ARRANGEMENTS OR ASSISTANCE REQUESTED DUE TO HANDICAP CHECK (✓) SEE REVERSE ☐

Approximate hours per week available for study

Education Code (See Reverse)

Occupation Code (See Reverse)

ACADEMIC INTENTIONS

I WISH TO REGISTER IN THE SESSION STARTING ☐ 1 JAN ☐ 1 MAR ☐ 1 MAY ☐ 1 JULY ☐ 1 SEPT ☐ 1 NOV

NOTE: REGISTRATIONS RECEIVED AFTER THE SESSION DEADLINE WILL AUTOMATICALLY BE TRANSFERRED TO THE FOLLOWING SESSION

PURPOSE OF APPLICATION — CHECK (✓) ONE ONLY AS APPROPRIATE

TO COMPLETE AN OLI PROGRAM AS SPECIFIED

- ☐ Bachelor of Arts Degree
- ☐ Bachelor of Arts in Administrative Studies Degree
- ☐ Bachelor of Arts (General Studies) Degree
- ☐ Grade 12 Certificate
- ☐ Grade 10 Certificate
- ☐ Trades Training (TO, Apprenticeship, etc.)
- ☐ Business Management Diploma
- ☐ Business Management Certificate
- ☐ Office Administration Certificate
- ☐ Office Management Certificate
- ☐ Motel Management Certificate
- ☐ Restaurant Management Certificate
- ☐ Small Business Management Certificate
- ☐ Electrical Generating Systems
- ☐ Construction Supervision Certificate
- ☐ Electronics Certificate
- ☐ Dental Assisting
- ☐ RN Refresher
- ☐ Industrial Supervision Certificate
- ☐ Power Engineering
- ☐ Travel Counselling Certificate

OTHER OBJECTIVE

- ☐ To take course(s) for credit at another institution
- ☐ To take course(s) for general interest/upgrading

YOU MUST CHECK ONE OF THE ABOVE. THIS INFORMATION WILL BE USED FOR ADVISING AND STATISTICAL PURPOSES — YOUR RESPONSE WILL NOT COMMIT YOU TO A SPECIFIC PROGRAM

COURSES

COURSE IDENTIFIER	COURSE TITLE	COURSE FEE
TOTAL FEES		$

STUDENTS REGISTERING IN ANY COURSE WHICH HAS A PREREQUISITE SHOULD ATTACH A SHEET DESCRIBING HOW AND WHEN THEY COMPLETED THE PREREQUISITE. FAILURE TO DO SO MAY DELAY THE PROCESSING OF THE REGISTRATION.

IF YOU WISH TO PAY YOUR FEES BY VISA OR MASTERCARD, PLEASE ENTER THE NUMBER AND EXPIRY DATE OF YOUR CARD IN THE APPROPRIATE BOX BELOW

VISA ACCOUNT NUMBER EXPIRY MO YR

MASTERCARD ACCOUNT NUMBER EXPIRY MO YR

FEES (OR VISA NUMBER) SHOULD BE SUBMITTED WITH THIS REGISTRATION. COURSE MATERIALS WILL NOT BE SENT UNTIL FEES ARE PAID IN FULL.

AMOUNT ENCLOSED $

I HEREBY CERTIFY THAT ALL STATEMENTS ON THIS APPLICATION ARE TRUE AND COMPLETE

SIGNATURE DATE

OPS-001(07/86)

IF YOU REQUIRE ANY ASSISTANCE WITH COURSE SELECTION, PLEASE CONTACT YOUR NEAREST ADVISOR OR TELEPHONE RICHMOND ADVISING CENTRE AT 270-8021

DEADLINES FOR SUBMISSION

The Open Learning Institute operates six four-month long sessions each year, with each new session overlapping the previous one. Students may start in any session, and continue in any pattern of sessions convenient to them.

To ensure that you receive course materials prior to the session starting date, you are urged to register as early as possible; if your registration is received in Richmond less than two weeks prior to the session starting date, you will almost certainly receive the course materials late. Any registration received after the session starting date will automatically be transferred to the following session unless instructions to the contrary are given.

Session Starting Date:	1 January	1 March	1 May	1 July	1 September	1 November
Registration Deadline:	22 December	22 February	22 April	22 June	22 August	22 October

FEES

PLEASE STATE REASON WHY FULL FEES ARE NOT ENCLOSED AND WHEN BALANCE WILL BE PAID IN FULL:

EDUCATION CODE

Select the code corresponding most closely to the highest level of education that you have completed and enter in the appropriate place on the front of this form. This is for advising and statistical purpose only and will have no effect on your admission.

01 Grade 7

02 Grade 10

03 High school graduation

04 College "university transfer" program — 1 year

05 College "university transfer" program — 2 years

06 Vocational school or college vocational program

07 College career or technical program

08 B.C.I.T. or equivalent program

09 Teacher's certificate

10 University Bachelor's degree

11 Attended university but incomplete qualification

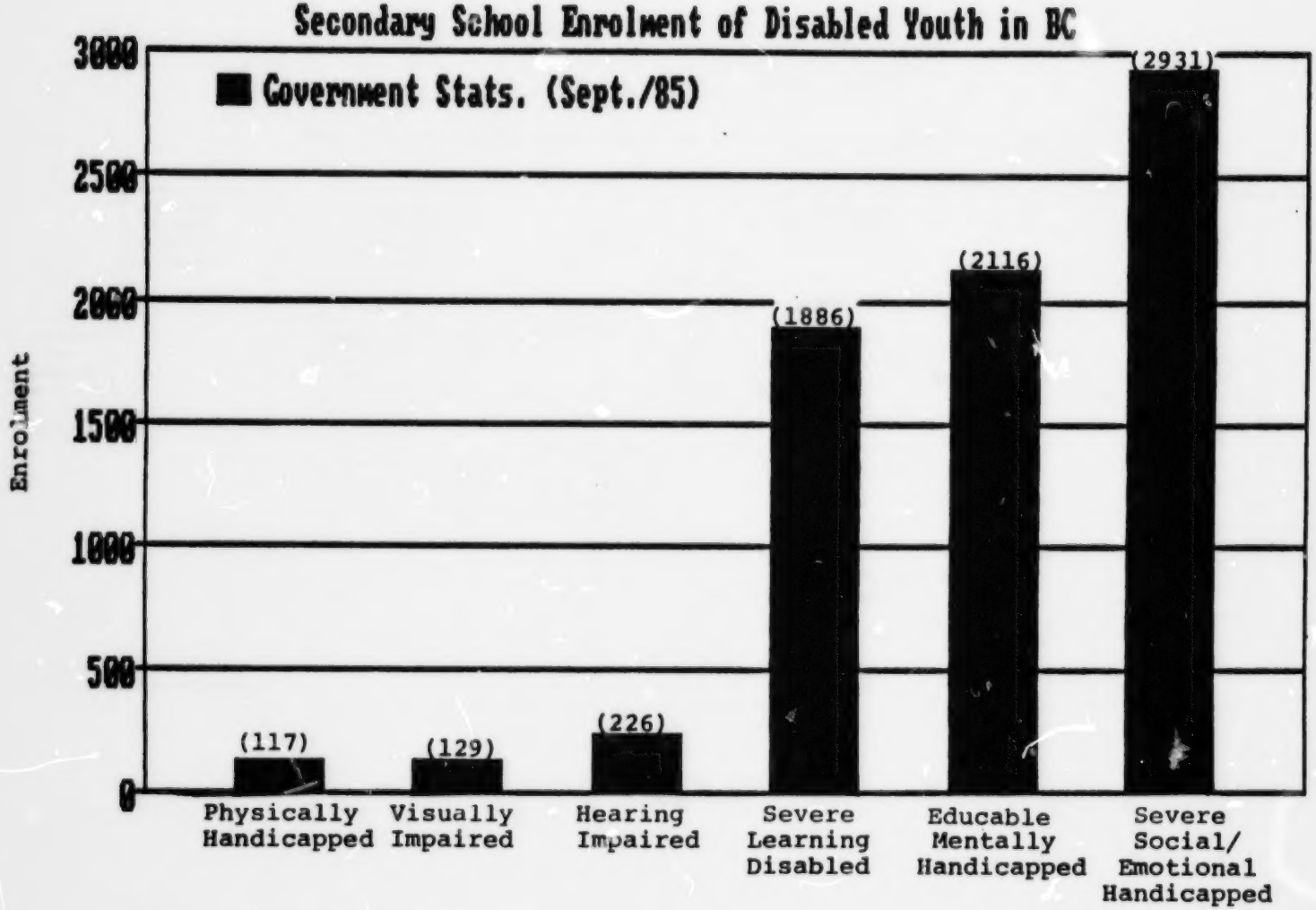
OCCUPATION CODE

Select the code corresponding most closely to your main activity during the past year and enter in the appropriate place on the front of this form.

01 Student attending secondary school
02 Student attending college or institute
03 Student attending university
04 Unpaid domestic duties (full-time parent, housewife, etc.)
05 Administrator or manager
06 Teacher or lecturer
07 Qualified scientist or engineer
08 Technical work (lab technicians or assistants, systems analyst, programmers, draughtsmen, etc.)
09 The professions and the arts (doctors, dentists, lawyers, pharmacists, journalists, authors, actors, accountants, clergy, etc.)
10 Tradesmen (electrician, plumber, machinist, welder, woodworker, etc.)
11 Primary industry (farming, mining, forestry, logging)
12 Clerical and office staff
13 Communications and transport (drivers, railwaymen, telephonists, postal workers, longshoremen, pilot, etc.)
14 Service occupations (police, shopkeepers, hospitality industry, hairdressers, recreation workers, etc.)
15 Institutionalized (prison, chronic sick, etc.)
16 Not working (retired, independent means, unemployed, etc.)

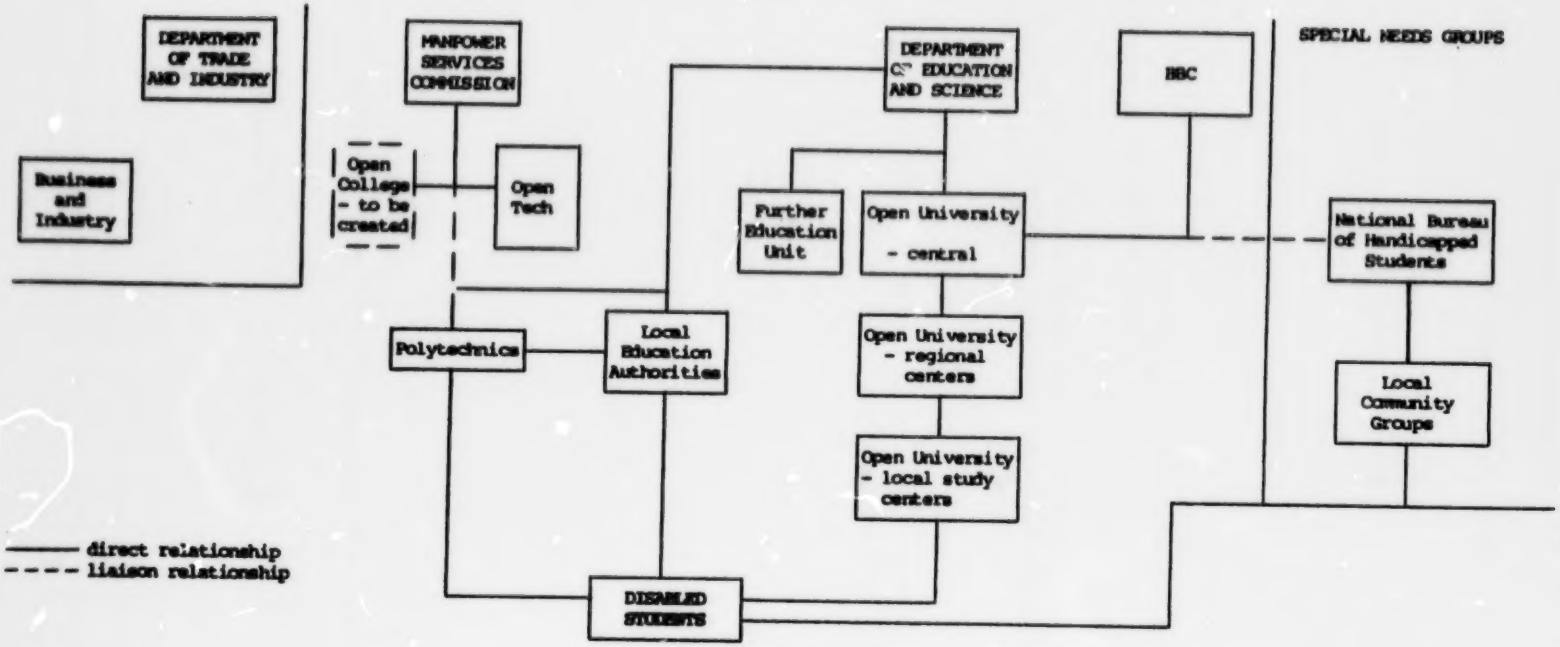
HANDICAPS

PLEASE NOTE ANY HANDICAPS WHICH MAY REQUIRE SPECIAL ARRANGEMENTS OR ASSISTANCE.


Secondary School Enrolment of Disabled Youth in BC
Government Stats. (Sept./85)
3000
2500
2000
1500
1000
500
0
Enrolment
(117)
(129)
(226)
(1886)
(2116)
(2931)
Physically Handicapped
Visually Impaired
Hearing Impaired
Severe Learning Disabled
Educable Mentally Handicapped
Severe Social/ Emotional Handicapped
CATEGORIES OF HANDICAPS

Appendix 4

FORMAL PROVIDERS OF OPEN LEARNING AND/OR ADULT SPECIAL EDUCATION PROGRAMS AND SERVICES



THE BRITISH SYSTEM - OCTOBER, 1986
(SIMPLIFIED)

THE OPEN UNIVERSITY
REGIONAL REPORT ON STUDENTS WITH SPECIAL REQUIREMENTS RESULTING FROM DISABILITY

This form should be completed with close reference to all available information, e.g. application form, and in consultation with the student.

OU Student No | | | | | | | | | | |

Student Name: Mr/Mrs/Miss/Ms_____

Forename(s)_____

Date of Birth_____

Age at onset of Condition_____years

Region_____

Name of Disability_____

e.g. Arthritis/diabetes

Description of Handicap e.g. confined to wheelchair, manual tremor_____

In section one please give details, under each *applicable* heading, of the student's functional handicap. Detailed guidance notes are attached to help you with this. Then move on to section two and indicate which areas of study are likely to cause problems as a result of the student's handicap.

1 FUNCTIONAL HANDICAP

A. RESTRICTION OF MOBILITY

B. IMPAIRED MANUAL SKILLS

Continued over page

FOR OFFICE USE ONLY

Received by _____ on _____
Office for Students with Disabilities

Disability Code

Distribution:

cc to	Date
S/Schools	
Student Records	
Associate Students	

Category Codes:

13		16	
14		17	
15		18	

1 FUNCTIONAL HANDICAP continued

C VISUAL IMPAIRMENT

D COMMUNICATION PROBLEM — HEARING

E COMMUNICATION PROBLEM — ORAL

F FATIGUE

---

2 PROBLEM AREAS (Please tick those aspects of study likely to cause difficulty.)

1	Broadcasts & Recordings	
2	Reading	
3	Tutorials	
4	CMAs	
5	Notes/Diagrams	
6	Home Kits	
7	Writing & Typing	
8	Exams	

9	Public Library Attendance	
10	Study Centre Attendance	
11	Summer School Attendance	
12	Student Computing Service	
13	Finance	
14	Home Situation	
15	Other	

DETAILED COMMENTS ON PROBLEM AREAS INDICATED ON P.2.

PROBLEM AREA No.

3 SUPPORT SERVICES REQUESTED: please tick appropriate box(es)

Taped Course Units	☐	Tactile Diagrams*	☐	*Available for only a limited number of courses
Transcripts of Radio & Television Programmes	☐	Enlarged Diagrams*	☐	

Signed:_____ Name:_____

Date:_____ Title: eg T/C_____

After Completion of this part of the form please forward it to the Regional Office

Continued over page:

4 *SENIOR COUNSELLOR'S COMMENTS:*
please detail recommended action arising from sections 1 and 2:

ACTION TO BE TAKEN BY:

Signed:_____ Name:_____

Date:_____

5 Please include here any information you think relevant but not covered elsewhere:

Regional Offices should retain copies of this form when completed and then forward the original, as soon as possible, to the Office for Students with Disabilities, Walton Hall.

PT19 GUIDANCE NOTES

Section I - Functional Handicap

In this section we are trying to find out how the student's disability affects the performance of certain activities like walking, writing, etc.

(a) Independence of Mobility:

How well can the student get about, alone and in different environments? Details of psychological problems should be given as well as the more obvious physical difficulties, e.g:

- (for a totally blind student with Angina) "has a guide dog but cannot walk long distances";
- (for a student with Agoraphobia) "can travel with someone familiar" or "- is completely unable to leave the house";
- (for a student with Multiple Sclerosis) " can usually manage with sticks, but stairs are a problem. When condition is bad, needs a wheelchair with help unless electric wheelchair available."

(b) Manual Skills:

This section should be completed for students with visual and/or manipulative problems. You should report whether the student has poor co-ordination, can only write very slowly or has trouble writing for a long time. Keep in mind the use of Home Experiment Kits as well as writing problems and give details of any machines which the student is dependent on for written communication, e.g:

- (for a blind student) "uses electric typewriter";
- (for a student with Arthritis) "can write for only short periods of time. Problems worse when writing under stress, e.g. Exams."
- (for a student with Cerebral Palsy) "severe manual tremor makes writing impossible. Relies on typewriter with key guard but even then completing written work is a slow process. Will need a helper to manipulate Home Experiment Kit."

(c) Visual Impairment:

This section is relevant to students with any form of visual impairment, including colour blindness. (It is also convenient to include Dyslexia under this heading.) Comment on whether the student is blind or partially sighted, has a limited field of vision or whether the condition fluctuates or is constant. Information might include:

"vision starts to blur if reads for more than about 20 minutes"; "is totally unable to deal with written material," etc.

(d) Communication Handicap - Hearing:

There is a wide variety of hearing problems. It is important to determine whether the student became deaf before or after acquiring language (usually

referred to as pre-lingual or post-lingual deafness respectively). Also, does the student benefit from using a hearing aid and if so, would an induction loop be of benefit*? To what extent does the student lip read, use sign language, cope in a one-to-one conversation or in a group? Does the student have enough hearing to understand the radio and TV programmes and cassette recordings or use a telephone? It is important to provide as much detail as possible about hearing loss as it may affect all personal communication within the OU, e.g. telephone contact, tutorials, summer school, exams, etc.

(e) Communication Handicap - Oral:

How difficult is it to understand what the student says? A problem may arise from a speech defect or from deafness. In very rare cases it might be necessary to record that the student is unable to communicate via the spoken word.

(f) Fatigue:

Does the student's handicap inevitably cause fatigue and does the fatigue in turn make the condition more difficult to cope with? Please distinguish between problems which:

- fluctuate according to activity (e.g. Arthritis of the wrist may only be a problem when a lot of writing is necessary);
- are a result of chronic and/or progressive illness (e.g. Multiple Sclerosis);
- are the result of a permanent impairment and cause continuous strain (e.g. Paraplegia);
- are intermittent, the student being perfectly well between attacks (e.g. Migraine, Epilepsy).

Section II - Problem Areas

Now that you have detailed the student's handicap, please indicate how this is going to affect studies with the OU. Check the list of Problem Areas at the bottom of page two on the PT19 and tick those you think will cause a problem. (E.g. for students with a severe hearing loss you would probably tick areas 1, 3, 8 and 11; whereas for students in a wheelchair you would probably tick 8, 9, 10 and 11.)

Section III - Support Services Requested

If the student has a visual problem which makes reading the course material difficult or even impossible, check whether cassette recordings would be helpful or necessary. If so, please tick the appropriate box. If the student has a hearing impairment and transcripts of TV and radio programmes would be useful, again please tick the appropriate box. Tactile diagrams are not widely available, but can often be made locally for students. The R.N.I.B. sells a Geometry kit which can be used for this purpose. Further guidance is available from your Regional Office or the Office for Students with Disabilities at Walton Hall.

* A loop system, used in conjunction with the 'T' switch on the student's hearing aid, will cut out the background noises normally amplified by the hearing aid. There are some available on loan, check with your Regional Office.

SB/ymm

PT19/20 UPDATE AND PROGRESS REPORT: STUDENTS WITH DISABILITIES/SPECIAL REQUIREMENTS

T/C .....No. ..... Student Name .....

Disability: ..... Personal Identifier .....

Please comment on

A. Changes in the student's condition

B. Changes in special requirements

(i) tutorial support

(ii) residential school

(iii)exam provision

(iv) other

C. Academic progress during the last year

Signed .....
Tutor/Counsellor

Date .....

Senior Counsellor comments

Signed .....
Senior Counsellor

Date .....

Regional Offices retain copies of the completed form which is then forwarded to the Office for Students with Disabilities, Walton Hall.

FOR OFFICE USE ONLY

Received by .....
Office for Students with Disabilities
on .....
Distribution

cc to	Date
S/Schools	
Student Records	
Associate Students	

Changed Codes

Disability Code | | | | | | | | |

Category Codes:

13		16	
14		17	
15		18	

C GENERAL INFORMATION

The questions below will help us advise you on your studies. If you need more space, attach a letter. If you need more advice, please contact your Regional Enquiry Service, whose address is on pages 28–30 of the Guide for Applicants.

C1 Why do you wish to study at the Open University? Please give the reason that is most important to you.

C2 Our policy is to help students with difficulties where we can. If any of the statements below apply to you, please tick the boxes and write a brief note in the space below. You may also contact your Regional Enquiry Service if you wish.

I have a disability	*No*	*Yes*
I am unemployed	*No*	*Yes*
I have a financial problem	*No*	*Yes*
My work causes problems	*No*	*Yes*
I have a domestic problem	*No*	*Yes*
Other problems?	*No*	*Yes*

Details

C3 Will you be resident in the United Kingdom in 1988? (see page 25 of the Guide)

Yes *No*

Please tick one box

C4 Which study centres are most convenient for you? Enter the codes, from pages 28–30 of the Guide.

First choice Codes

Second choice

Regional code of first choice study centres

Office use

D YOUR PREVIOUS EDUCATION

D1 How old were you when you first completed your full-time education?

years

D2 Look at the section 'Education Codes' overleaf. Enter here the code which best matches your highest level of education.

D3 Please give details of any courses you have taken and any qualifications obtained. Include courses you are taking now, and any courses you did not complete. Include any other Open University courses, and any courses which don't lead to certificates. 'Mode of study' means full-time, part-time, evening, day-release, sandwich, correspondence, etc.

Course/subject 1	Course/subject 2
Mode of study	Mode of study
Dates from to	Dates from to
Qualifications obtained (if any)	Qualifications obtained (if any)
Institution	Institution
Course/subject 3	**Course/subject 4**
Mode of study	Mode of study
Dates from to	Dates from to
Qualifications obtained (if any)	Qualifications obtained (if any)
Institution	Institution

D4 Do you wish to apply for advanced standing? (see page 10 of the Guide)

No *Yes*

Please tick one box

• Please check that you have answered each question fully and correctly. We reserve the right to alter or withdraw any offer made if the information you have given us is untrue or misleading, or if you have made more than one application.

Sign here Date

• Do not enclose any documents or payment unless asked to do so. Return to the Undergraduate Admissions Office as soon as possible. The deadline is **30 September, 1987.**